Public Meeting of the Board of Directors
June 15, 2017
Hermosillo, Sonora

ENGLISH VERSION

[TRANSLATED FROM SPANISH][1]

MR. BRAVO: If you would to take your seats, we're going, we're about to begin.

[PAUSE]

Good afternoon. Thank you for joining us for this public meeting of the Board of Directors of the Border Environment Cooperation Commission and North American Development Bank. Let's recognize the distinguished guests joining today on the dais.

Carlos Raúl Delgado Aranda. He is the Deputy Director of the Office of International Financial Coordination for the Ministry of Finance and Public Credit.

[APPLAUSE]

He serves as chairman of the Board of Directors.

I'm pleased to introduce Geoffrey Okamoto. He is co-chair of the Board of Directors.

[APPLAUSE]

He holds the position of Deputy Assistant Secretary for International Development Policy of the U.S. Department of the Treasury. Board member Randy Hill. He is with the U.S. Environmental Protection Agency.

[APPLAUSE]

We recognize the presence of Manuel Ignacio Acosta Gutiérrez, Mayor of Hermosillo. Thanks for being here with us Mr. Mayor.

[APPLAUSE]

Board Member Colleen Hoey, Director Office of Mexican Affairs of the U.S. Department of State.

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[1] Text shown in blue indicates that the original comments were made in Spanish and were translated into English.

[APPLAUSE]

Board Member Enrique Lendo, Head of the Unit for International Affairs of the Ministry of Environment and Natural Resources.

[APPLAUSE]

Also with us is Board Member José Rodríguez. He is a senator of the State of Texas.

[APPLAUSE]

Board Member Marcela Andrade, Head of the Office for Coordination with States for the Ministry of Finance and Public Credit.

[APPLAUSE]

María Elena Giner, General Manager of the Border Environment Cooperation Commission.

[APPLAUSE]

Alex Hinojosa. He is the Acting Managing Director of the North American Development Bank.

[APPLAUSE]

We have Board member Carlos de la Parra, a researcher at *Colegio de la Frontera Norte*.[2]

[APPLAUSE]

A new friend of our institutions, Congresswoman Sandra Mercedes Hernández, Chairwoman of the Committee on Energy, Environment and Climate Change.

[APPLAUSE]

MS. HERNANDEZ: Thank you.

MR. BRAVO: Board Member Denise Moreno, form the Center for U.S.-Mexican Studies of the University of California at San Diego.

[APPLAUSE]

We are very pleased to recognize the presence of Miguel Ernesto Pompa Corella, the Secretary of the Government, who is here representing the Governor of the State.

[2] *Colegio de la Frontera Norte* (COLEF), Mexican institute of scientific research and higher education specializing in U.S.-Mexico border issues.

[APPLAUSE]

Next, we will hear some welcoming remarks from the Chairman of the Board of Directors, Carlos Raúl Delgado.

MR. DELGADO: A very good afternoon to everyone. Thank you very much for being here. I'd also like to thank the authorities of the Government of Hermosillo, also the Secretary of the Government, for having us here, for serving as our host in this very important meeting for the Bank and for BECC.

This is our first meeting of the year. It is a very important meeting for the Bank and for BECC because we are beginning to work, first, on implementing a recent reform that was approved by Mexico, by the Senate this past April and that is going to allow these two institutions to merge, BECC and the Bank, to create a single institution that seeks to better support, more efficiently, more rapidly, to take better advantage of the synergy for supporting projects that have a significant impact on the environment. As you know, the Bank and BECC specialize in supporting environmental infrastructure project in such areas as water, as waste, renewable energy, energy efficiency.

The Bank has been working for several decades now, for several decades, with very strong impetus, with very strong support from the Governments of Mexico and the United States. In this sense, the reform represents a significant change in the way in which the institutions are going to work. We expect that, soon, you who benefit, who seek financing, who seek technical assistance from these institutions, soon you will see the results that the joint work of the two institutions is going to represent going forward for the border region, both in Mexico and the United States.

I would also like to take the opportunity to mention that the Board recently decided to appoint Salvador López Córdova as director of environmental affairs. But we also have people who, although they were already with the institution, have assumed new positions. There is Alex Hinojosa and also Calixto Mateo. The purpose of these appointments by the Board is to provide renewed impetus to the work that the Bank and BECC are doing. And as I said a moment ago, the idea is that shortly you will begin to see the results of these changes that are being implemented. Having said that, I will relinquish the floor.

MR. BRAVO: Thank you very much Chairman. Next, we have the presentation of a video with a report from BECC and NADB management, on relevant activities from the first half of 2017.

[VIDEO]

> ***MR. ALEX HINOJOSA [NADB Acting Managing Director]:*** *On April 27th, the Mexican Senate approved the second protocol of amendment to the Charter of BECC and the Bank, which merges the two institutions to create a stronger binational organization to support high-impact infrastructure projects in the border region. We are expecting the Governments of Mexico and the United States to conclude the formalities for entry into force of the protocol of amendment this coming September. Therefore, we are accelerating all remaining*

actions necessary to ensure that BECC's operations will be fully integrated into the structure and legal personality of the Bank by that date.

NARRATOR: *The most relevant operational results: Projects approved between November 2016 and June 2017. Since the last public meeting of the Board of Directors held in San Antonio, Texas, the certification and financing of three environmental infrastructure projects have been approved. Their total estimated investment is close to US$70 million and they will benefit more than 362,700 residents.*

For the first quarter of 2017, the Technical Assistance Committee made the following approvals.

ON-SCREEN TEXT:

US$1,136,500 to support 12 studies and training seminars.

NARRATOR: *Additionally, in conjunction with the implementation of the methodology for Emerging and Sustainable Cities that is jointly being carried out by NADBank and the Inter-American development Bank, the study "Rethinking Hermosillo – Future Vision of the City" was initiated. It is being developed by Harvard University Graduate School of Design.*

BECC and NADBank have worked with the incoming administrations of the Governments of Tamaulipas and Chihuahua to develop work plans aimed at identifying projects and initiatives where NADBank and BECC could provide technical and financial support. The actions contained in these plans were reviewed with the teams of Tamaulipas Governor Francisco Javier Cabeza de Vaca of Tamaulipas and Chihuahua Governor Javier Corral Jurado.

MR. JAVIER CORRAL [Governor of the State of Chihuahua]: *We did not hesitate to turn immediately to BECC to guide our fundamental goals and even connect our vision on issues having to do with taking care of the environment and the sustainability of public policy that we want to push in Chihuahua.*

NARRATOR: *With respect to the Project Development Assistance Program (PDAP) of the U.S. Environmental Protection Agency that is administered by BECC, during the first quarter of 2017, approvals were made for communities in Tamaulipas, Arizona and New Mexico.*

NARRATOR: *With respect to the U.S.-Mexico Border 2020 Program, five projects were completed in the first quarter of the year, related to:*

ON-SCREEN TEXT:

- *HAZMAT Emergency Response Training Program*

- *Electronic waste management in chemical laboratories*
- *Green infrastructure demonstration project*
- *Electronic waste project.*

NARRATOR: *Additionally, in the months of April and May, a request was issued for projects to be implemented in the border regions. Thirty projects are expected to be selected, including training events, sector studies and environmental projects, resulting from this request.*

Project completions. In the last few months, several projects were substantially complete or entered into operation.

EDPR Wind Farm in General Cepeda, Coahuila. It has a capacity of 195 megawatts. The energy generated is purchased by Industrias Peñoles through a long-term power purchase agreement.

MR. ENRIQUE PEÑA NIETO [President of Mexico]: *To inaugurate this wind farm in Coahuila, because to date, it is the largest wind energy farm in Mexico right now.*

NARRATOR: *On March 23rd, a ribbon-cutting ceremony was held for the Arsenic Treatment and Wastewater Collection Project in Tornillo, Texas. The plant has the capacity to treat 37.9 liters per second of water to reduce naturally occurring arsenic concentrations in the aquifer.*

[IN ENGLISH]

MR. WILL HURD [U.S. Congressman representing the 23rd District of Texas]: *Everybody should have clear drinking water. It's very simple. And when you have folks working together to solve a problem, you can get things done. And it's great having a partner like the North American Development Bank, the NADBank.*

[TRANSLATED FROM SPANISH]

NARRATOR: *The Hermosillo Wastewater Treatment Plant was certified in April 2011. Its design capacity is 2.5 cubic meters per second. It is providing 100% wastewater treatment coverage for the capital of the state of Sonora. It includes pumping and conveyance works.*

This $82.8 million-peso photovoltaic plant supplies the electricity needs of the Los Alisos Wastewater Treatment Plant, located south of Nogales. It's the first treatment plan in Mexico to operate using 100% photovoltaic energy.

MS. CLAUDIA PAVLOVICH ARELLANO [Governor of Sonora]: *It's easy to say, but there are more than 3,000 solar cells that represent $500,000 pesos a month in savings that this treatment plant generates for the utility.*

NARRATOR: *Groundbreaking ceremonies. Several projects began construction this year, including two CAP, one in Sabinas, Coahuila and the other in Nogales, Arizona. There are currently 37 projects certified and financed by BECC and NADBank in various stages of construction.*

The ceremonial signing of a US$1.8 million grant agreement was held for the Cuadrilla project.

BECC, in coordination with the North American Development Bank, has promoted a green infrastructure initiative since 2014 to help border municipalities address the issue of inadequate storm water management. To date, a series of forums, such as the fourth forum hosted in Hermosillo on May 18th, training workshops, demonstration projects, amendments to municipal regulations and a manual of technical guidelines have been developed.

At the end of 2015, BECC, the German Government's Development Cooperation Agency in Mexico known as GIZ and the State Water Commission of Coahuila decided to promote the creation of energy efficiency learning network for water utilities in the state of Coahuila known as RED. Since 2015, 14 water utilities are participating. Due to the success of this initiative, the parties signed an agreement on February 22, 2017 to continue with a second phase, which is in process.

During the second quarter of 2016, an impact assessment was initiated in the Lower Valley region of El Paso County, Texas, which is located east of El Paso. This study evaluated the impact of the wastewater collection and treatment infrastructure projects that were certified and implemented in 2008 in the communities of Socorro and San Elizario. The main conclusions of the study are provided below.

ON-SCREEN TEXT:

- *The population covered went from 52% to 100% coverage.*
- *In wastewater collection, of the 100% of the population that were using septic tanks and cesspools, 93% coverage was achieved with connections to the sewer system.*
- *Median household incomes grew and property values increased.*
- *High satisfaction of service users and perception of better quality of life and health.*

NARRATOR: *The two institutions have promoted another initiative, a results measurement system for certified and financed projects. The first aggregate report covering 60 completed BEIF and non-BEIF projects, 35 in Mexico and 25 in the United States, benefitting 5,489,375 residents and representing a real investment of US$711.77 million. The results of the 60 projects include:*

ON-SCREEN TEXT:

- *Close to a cubic meter per second of drinking water treated and 13,414 new residential water hookups*
- *Close to eight cubic meters per second of access to wastewater treatment, with 318,035 new sewer connections, achieving 94% in wastewater treatment coverage*
- *963 metric tons a day of improvement in waste management*
- *Close to a million square meters of urban roadways paved with a notable improvement in air quality*
- *53.6 gigawatt-hours a year of electricity from renewable energy projects*
- *15 million cubic meters of water saved in irrigation districts where technical improvement projects were implemented.*

NARRATOR: *This past April 25th, the BECC General Manager participated in the seminar Development Bank Financing Services to Combat Climate Change and Promote Sustainable Development. She participated in the XVI World Water Congress in Cancun.*

MR. ALEX HINOJOSA [NADB Acting Managing Director]: *Looking to the future and as part of our development bank mission, we will continue to promote the development and financing of sustainable infrastructure projects, with an emphasis on the core sectors of water and wastewater. And, at the same time, will continue leveraging private-sector capital for the construction of infrastructure in both countries. With the reforms in Mexico and the opportunities in the United States, the Bank is considered to be a bridge for private investment between the two countries.*

On behalf of the Bank and BECC teams, we thank Ambassador Gerónimo Gutiérrez and Maria Elena Giner for their leadership at the head of these of two institutions. Under their management significant progress was achieved in various programs to boost the institutions and primarily unify and integrate their functions. Likewise, as we enter a new era as an integrated institution, we welcome Dr. Calixto Mateos as Acting Deputy Managing Director and Mr. Salvador López Córdova as the first Chief Environmental Officer.

MS. MARÍA ELENA GINER [BECC General Manager]*: Working in this organization has been one of the most important phases of my professional life. I've grown at BECC practically since its creation, when I joined as a manager and went on to occupy director positions until I became General Manager. Supported by a spectacular team, the institution has been transformed with state-of-the art processes and innovative initiatives such as strategic planning, results measurement, energy efficiency and green infrastructure. I'm leaving a great network of friends inside and outside this binational entity that I will carry in my*

heart forever. Thanks to BECC and thanks to the entire border community for giving the experience necessary for the next chapter in my professional career. It has been an honor working with you and I'm going to miss you. Thanks.

[APPLAUSE]

MR. BRAVO: Thank you very much. I would like to recognize the presence of distinguished guests, but of course their names have already been mentioned twice, Calixto Mateos, new Acting Managing Director of the Bank. Calixto please.

[APPLAUSE]

And Salvador López who is joining the team.

[APPLAUSE]

It's my great pleasure to welcome Cecilia Olague, who is the Secretary of Urban Development and Environment for Chihuahua. Thanks Cecilia for coming so far.

[APPLAUSE]

We have with us, Luis Pinto, General Manager of the State Commission of Tamaulipas, Luis.

[APPLAUSE]

He comes from Ciudad Victoria.

From Chihuahua y Ciudad Juárez, we have the Chairman of the Board of the *Fundación del Empresariado Chihuahuense*, Héctor Jurado, and Gilberto Cueva. There they are. Thanks for coming from so far away.[3]

[APPLAUSE]

Dr. David Torres, Mayor of Valle Hermoso. Doctor, thanks for coming from so far away. Thanks.

[APPLAUSE]

Leonardo Verdugo, I don't know if he is here. They told me, no?

Okay, María Guadalupe Peñúñuri, a great friend of BECC. Thanks Guadalupe, Director of IMPLAN.[4]

[3] *Fundación del Empresariado Chihuahuense, A.C.,* a non-profit organization formed by Chihuahuan businesses to support community development.
[4] *Instituto Municipal de Planeación Urbana de Hermosillo* (IMPLAN), urban planning institute of Hermosillo, Sonora.

[APPLAUSE]

Of course, Luis Carlos Romo, Executive Commissioner of CEDES, who is helping us with all the logistics of this event.[5] Thank you very much.

[APPLAUSE]

A great friend of BECC, of the Bank, Enrique Castillo, entrepreneur, Director of Grupo Gestión Empresarial. Thanks Enrique. He is here, from…

[APPLAUSE]

He is from Hermosillo, but he is over in Monterrey, Nuevo Leon.

We have a very special moment, the presentation of a plaque from the National Association of Water and Wastewater Companies (ANEAS) in recognition of BECC General Manager María Elena Giner.[6] Salvador Sánchez Meléndez is presenting this plaque on behalf of ANEAS. María Elena, if you would come down for the photo.

MR. SÁNCHEZ MELÉNDEZ: Good afternoon, the Mexican National Association of Water and Wastewater Companies awards Maria Elena Giner this plaque.

[APPLAUSE]

MR. BRAVO: Very moving, really. She has been working at BECC almost 20 years. She was very young when she started.

MS. GINER: Fifteen years old. I was fifteen.

[LAUGHTER]

MR. BRAVO: Next, we have a message from Mr. Manuel Ignacio Acosta Gutiérrez, Mayor of Hermosillo. Mayor.

[APPLAUSE]

MR. ACOSTA GUTIERREZ: Thank you. Good afternoon. Thank you very much for being at this Board meeting. My special thanks to the Governor's representative, Miguel Pompa, the Secretary of Internal Affairs; to Geoffrey Okamoto, chairman of the Bank's Board of Directors; Congresswoman Sandra Hernández; Carlos Raúl Delgado, chairman of the Board of Directors; all the board members, senators, representatives from the different states; representatives of the Ministry of Foreign Affairs, from SEMARNAT, Marcela

[5] *Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora* (CEDES), Sonora state commission on environment and sustainable development.
[6] *Asociación Nacional de Empresas de Agua y Saneamiento* (ANEAS).

Andrade from UCEF.[7] Thanks to everyone who is joining us today. María Elena Giner, thank you for all the support you have given Hermosillo in particular and, well, for what you have sown in this country. To the secretaries I extend special thanks, to Secretary Meade, to the secretaries who are represented here; to Calixto Mateos; to Salvador López; to Rubén Araiza, Assistant Secretary of Finance; to Luis Carlos Romo, Lupita Peñúñuri and everyone.

Well, many thanks for being here. It's an honor for us to have the Border Environment Cooperation Commission and the North American Development Bank Board of Directors here. We are very happy to have them here. Moreover, every time we meet, fresh ideas emerge for working in our most immediate authority, that is the municipalities. Everything happens within a territory called a municipality. That's why it is so important—we were just talking about it—mutual understanding and cooperation is how we will strengthen our challenges, our weaknesses, and overcome the great challenges we face.

At the end of the day, we are dealing with a new paradigm. A new paradigm, that if we understand that it's by working together that we are going to overcome them and being very clear in a long-range vision and a lot of planning and exercising responsibility, to be clear that it isn't betting on the immediate. It's about really doing the right thing. Because what we are experiencing today is, paradoxically, deep discontent, on the one hand. But today we have the greatest life expectancy. We are close to reaching unthinkable levels when the millennium commitments were made, in terms of maternal and child mortality, and extreme poverty.

So, I think that we, as authorities, face significant challenges, and we have the great challenge of resisting fleeting popularity and also resisting decisions that only last a single day. And, what am I talking about? That last year when we were at NADBank around this date, well it turns out that 22 years ago we began talking in Hermosillo about our first water treatment plant. Twenty-two years discussing it, because we all knew it was important, but nobody wanted to make the decision to go for it, because that implied, well, a cost. And that cost is both financial and political. But also, today, after 22 years of being discussed, it was built, and now they were almost vandalizing it because it sat there for years—should we turn it on or not turn it on. In December, we put it into operation and, well, you all know perfectly well the months that followed.

But it is not about us. It's about what we are doing, what we are doing for the environment, what we are doing to build cities with the vision that we all really want. We cannot be thinking of a mayoral term of three or four years, or at best—and I'm not talking about myself—six years. In other words, the time is very short. And we really have to bet on the right thing. Sowing. Sowing so that next generation may harvest. The same for green infrastructure. The same for whatever you are doing. Every step, understanding that we are not going to fix all the problems. There are always going to be more challenges, but don't let them pile up for lack of decision. That is important, and NADBank and BECC have helped us a lot with that.

[7] *Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT), Mexican Ministry of Environment and Natural Resources; *Unidad de Coordinación con Entidades Federativas* (UCEF) *de la Secretaría de Hacienda y Crédito Público* (SHCP), office of Coordination with States of the Mexican Ministry of Finance and Public Credit (SHCP).

And that's why we think that the new city model should be, first, very close to the people, listening. Just as we are doing in building this sustainable city model. The truth is that we've gone and we've held workshops. I've been called on to attend several. Students from Harvard University were here. And that's a real commitment and a huge responsibility: designing the city that we want in 20, 30 or 40 years. If, 15, 20 years ago, we had thought like that, today we would not be talking about the same challenges, the same problems. And the truth is that that is the first challenge that the world is demanding of us today: not to fall into that perverse temptation of making decisions for the sake of fleeting popularity.

That's why we are convinced that what we are doing is, and goes hand in hand with something very important, the mega-region that is being promoted by our Governor Claudia Pavlovich and Governor Ducey. There are already tangible results and we are already seeing, not just cooperation, but tangible actions in the environment, in economic development, in education, in sports and in many other things. But the important thing here is that we bear in mind that we are part, a small part, of the long history of humanity which is now demanding that we evolve and change and obviously move toward that new paradigm that society is now demanding of us. That's why the Emerging and Sustainable Cities program that NADBank is supporting and the Green Infrastructure Program that we have designed with the support of BECC, is naturally going to help us provide not only sustainable development, but also economic and social development and everything that goes with it.

That is why I believe that today, in Hermosillo, not only are we talking about, after six months, the Ministry of Health is already telling us that respiratory illnesses, dengue fevers, infections and so many other diseases have been reduced, that because of an issue of irresponsibility the water treatment plant was not put into in operation. In other words, there is a cost, but the cost is much higher in quality of life for people. I believe that today, today and tomorrow, the future that we must envision, we have to embrace it. We really have to believe it and really work for it, even if we may not reap it.

And I was telling you the day we launched the green infrastructure project, that there is a statement from a film you have probably seen: 'When the last tree has been cut down, when the last lake has been poisoned, when the last animal has been killed, only then will we realize that money cannot be eaten.' We must call for responsibility because the environment is not in conflict with economic development. That is why, here, in Hermosillo we have also promoted what you have seen the most today—solar energy. We are once again going to become the sun city, to promote renewable energy so that they really come here to invest, and really it also continues fueling us a capital city, a living, active, dynamic capital, and, well, the capital that has grown the most economically and demographically in recent years.

Truly, thank you very much. You have our immense commitment and, of course, to act and do the right thing, not just on social and environmental issues, but on all of them. Thank you.

[APPLAUSE]

MR. BRAVO: Thank you very much Mr. Mayor. Yesterday the Board of Directors toured the city, saw what you are doing in green infrastructure works and, of course, was at the treatment plant.

I would like to recognize the presence of Dr. Samuel Ocaña, ex-governor of the state of Sonora. Doctor, thanks for being here with us.

[APPLAUSE]

Ángel Bours Zaragoza, chairman of the Sonora-Arizona Commission is also here. Thanks for being here.

[APPLAUSE]

We conclude this opening ceremony with a message from Mr. Miguel Ernesto Pompa Corella, Secretary of Internal Affairs, representing Claudia Pavlovich Arellano, Constitutional Governor of the State of Sonora.

MR. POMPA CORELLA: Good afternoon. On behalf of Governor Claudia Pavlovich Arellano, greetings and welcome to all the distinguished guests who have joined us today for this public meeting of the Board. Dr. Samuel Ocaña, it's a pleasure to welcome you.

Governor Claudia Pavlovich Arellano asked me to express her appreciation for holding this important meeting here in Sonora. The Governor would like to assure you that the Government of Sonora is very willing and highly interested in joint efforts toward achieving more prosperous and sustainable border regions with greater binational cooperation. Sonora maintains the best terms of cooperation under a federal system in Mexico and has extended its efforts in mutual understanding and strengthened ties with federal, state and local authorities in the United States, with Governor Claudia Pavlovich at the forefront.

So, it's a pleasure and honor, as well as an excellent opportunity, to express Governor Claudia Pavlovich Arellano's interest in cooperation and understanding for development locally and globally. The Government of Sonora is particularly interested in having this NADB-BECC Board meeting here in Sonora. We recognize the changes in the first line of cooperation in times of multiple and changing scenarios in the federal policy of the U.S. Government.

In Sonora, Governor Claudia Pavlovich Arellano has taken a stand in support of strengthening our capabilities for handling complex scenarios in the binational reality of the U.S. and Mexico government administrations. Officially and personally, she has built strong mechanisms of cooperation to consider the joint potential of Sonora and Arizona as a mega-region, fortunately always, as we mentioned in the previous meeting, with the understanding and support of Arizona Governor Doug Ducey and federal officials of the U.S. government. This Sonora-Arizona mega-region proposes environmental cooperation and the infrastructure essential for sustainability, for the sustainability of the many activities that are being developed here.

Governor Pavlovich, through me, would also like to express her appreciation for the work of María Elena Giner as head of BECC. She has always been a partner and friend to

Sonora. She also and we welcome Salvador López Córdova, the new Chief Environmental Officer at the North American Development Bank, with the firm belief of continuing a close and successful relationship.

Strengthening our capacities implies, in particular, the strengthening of entities, which like the North American Development Bank and Border Environment Cooperation Commission came about in the wake of the North American Free Trade Agreement. These are times when challenges arise in the renegotiation of the free trade agreement in light of the intense economic activity here and investments in major infrastructure works to treat wastewater, supply water, manage solid waste, monitor and manage air quality.

Since the NAFTA went into effect in 1994, Sonora has received funding for 31 projects with investments of about US$657 million, in municipalities—it's a pleasure to greet Sandra who is with us today—as well as our dear Nogales, San Luis Río Colorado, Naco, Agua Prieta, Plutarco Elías Calles and Hermosillo. Coverage has increased, as the mayor just said, from 3 to 86% in terms of wastewater treatment, from 87 to 99% in terms of access to drinking water, and from 38 to 86% in terms of wastewater collection. This substantial improvement in quality of life has led to a change in strategic focus in terms of investment and a decision to support sustainable energy transition in border communities. Today, two solar energy projects are being promoted in Sonora: Los Juan Pablos in Caborca and Orejana Zuma in Hermosillo. In keeping with the green development strategy which we, as a state, have decided to promote, we will also require the strengthened presence of the Bank and Commission with more projects and investment.

As a state, we are committed to ensuring that the conditions are there, such as the work done to develop the environmental strategic plan for Sonora-Arizona megaregion. With this document, Governor Claudia Pavlovich is targeting investment intelligently in order to improve the quality of life in the border regions to preserve the Sonora desert, which includes a significant area of Arizona. Other projects currently under way are related to solid waste, air quality and, in Agua Prieta, the construction of a comprehensive wastewater treatment system. These projects are even more important light of the presence here of Ms. Colleen Hoey, Director of the Office of Mexican Affairs of the U.S. Department of State. You can be sure, Ms. Hoey, that in Sonora we are doing our part in this great work of building strength in the border region and national development for both countries, with understanding, a shared economy, regional culture and high-level political and diplomatic ties.

That's why I greatly appreciate the drive and vision of Luis Carlos Romo at CEDES, that in this session and thanks to this meeting, we have here with us decision-makers in international development and policy, such as Geoffrey Okamoto, or agencies that link the big decisions on projects from the Mexican federal level, represented here by Mr. Carlos Raúl Delgado Aranda, whom we thank very much and who is the International Affairs Coordinator for the Mexican Ministry of Finance, as well as Marcela Andrade, Head of the Office for Coordination with States who, as the mayor stated so well, has been a tremendous support for Sonora and for Hermosillo.

There are also elected officials from the United States and Mexico. The Mayor of Hermosillo is here. The mayor of Nacozari is here, who I saw over there. Congresswoman Sandra Hernández is here. This message, which we want to make quite clear to you and

which is sent by Governor Pavlovich through me, is that both governments, the U.S. Government and the Mexican Government, are here driving efforts at all levels for better times ahead, as has been made clear in previous meetings.

We see the importance, as we said earlier, what the border between the two countries represents. Let's keep on building the bonds of friendship, brotherhood, blood, trade and let's keep joining forces efforts because as the Governor says, 'together we achieve more.' Thank you very much and welcome to Sonora.

[APPLAUSES]

MR. BRAVO: Excuse me, we would like to take a moment to take a photo of the entire group because it is really historic this photo. If you'd like to pause and take photos, video, yes?

[APPLAUSE]

Thank you very much. We'll pause a brief moment in case the officials here wish to withdraw or stay for the public meeting. You tell me. Sandra is staying. Secretary? Mayors? It's up to you. This is your house. Moreover, we've already shown that there are bridges of understanding here. Okay.

Now we come to the session for public participation. Several people registered online to speak. I'm going to call them by name and they can come up here to state their position.

Excuse, first Congresswoman Sandra Hernández is going to say a few words.

CONGRESSWOMAN HERNÁNDEZ: Good afternoon everyone. Welcome to everyone who is joining us today, from outside the state and also the United States. Thanks for being here. To everyone here 'welcome'. Welcome everyone.

I would like to mention the legislative work that we are doing in the State Congress. I am the head, chairwoman of the Energy, Environment and Climate Change Committee, which has been a shared responsibility and we have been working in coordination with BECC, with CEDES, with representatives of the LXI Legislature. We have also been working with Water Management Group, with one of its advisors on important topics such as green infrastructure as well as climate change legislation.

Currently, we are a state that is ahead of the curve because we already have in the Law of Ecological Balance, we had not planned on it, but we have made amendments to that law to include green infrastructure. It's now a bill approved by Congress, and the State of Sonora is sponsoring a bill of this nature at the national level.

Thank you, María Elena. You helped us a lot with this. Thanks also for the support from NADB, who was also present. And certainly, those who participated in this project as well and whom I don't want to forget to mention, IMIP and IMPLAN.[8] IMIP from Nogales, and IMPLAN from here in Hermosillo. There have already been some signs of work in the area

[8] Instituto Municipal de Investigación y Planeación (IMIP), municipal institute of research and planning.

of green infrastructure. We need to harvest rainwater and that's what we are now putting into law.

What are we working on now? On the regulations, the manuals, which is the next step. We have also already approved the Climate Change Law, which was also sponsored by Congressman Emeterio Ochoa. We have also already approved as part of the amendments to the Law of Ecological Balance, some measurement indicators sponsored by Congressman Moisés Gómez Reyna. I sponsored the Green Infrastructure Bill. So, I think we are taking a big step forward on an issue of life, where we are guaranteeing our new generations, well, the stability of our environment, no?

We have also issued two urgent petitions led by me, also related to the environment. I would like to mention them here. We have just made an urgent appeal regarding the Imuris issue where we have a red-hot pollution source. The secretary is already aware of it. This issue is widely known. We also promoting, with the support of the State Government and BECC, a landfill for that community. Our garbage dump there is open to the air. We are having tremendous fires. We have a huge source of infection, and I am sure that, coordinating in this way, we will succeed. We are also promoting a wastewater treatment plant in Imuris. The Magdalena River is being contaminated. It flows into the Bambuto River, and it is water for human consumption. So, we are also working on these types of petitions there. But above all, the work that has been done in the LXI Legislature has been historic. It's been historic, because, the congressmen of this legislature, from all parties, have come together as never before to work on life issues such as these.

That's what I wanted to say. I wanted you all to know what we are doing in Congress, in Legislative Branch, because, while it's true, well, the three branches have to work together. There is a topic there, from the Environmental Advocacy Office, which we are already reviewing in the committee on the impact of monitoring, reviewing, inspecting, supervising and, of course, any warnings that may be necessary, for crimes committed against the environment, no?

Thank you for permitting me talk about this. I thought it was important to tell you that Sonora now has green infrastructure.

[APPLAUSE]

MR. BRAVO: Thank you very much Congresswoman. With the participation of the congresswoman, we begin the session for public participation. Several people registered online to speak. One who I don't see there, Mateo Castillo, a long-time friend from SEMARNAT. He's not here.

From the city of Puebla, three businesspeople, entrepreneurs from Industrializados Ecológicos, headed by their General Manager Luis Manuel Tovanche. They have requested time to talk about a way to dispose of and recycle used tires.

MS. LINARES: Good afternoon Board of Directors, community. It's an honor to be here with you. Thank you for giving me this time. We are a company from Puebla. 'From Puebla?' You will ask 'why?' So far from our home. Well, we are proposing a project, an environmentally-friendly tire incineration plant that uses used tires. The problem of used

tires is widespread. It effects the entire country. It's just that the border is the hot button that everybody looks at. Our plant is 100% Mexican—higher, excuse me. Its development is 100% Mexican. The technology is innovative. We are not talking about pyrolysis or thermolysis nor shredding as such. We have created it from scratch. It's based on the study we did on the disposal, treatment and reduced contamination of used tires. We have patent number MXA-2011 where… We have three, environmentally friendly, we are portable, and obtain three byproducts.

The three byproducts we obtain from this process are carbon black, steel, and light and dirty oils. All three are produced without releasing a single pollutant into the environment. These three byproducts have a national and international market. We have the process, the project, the business plan to build an incineration plant with a processing capacity of 475 tons/month. That is, 47,500 tires weighing about 10 kg each, or 9,500 tires weighing about 50 kg each. We already have a business plan, risk assessment, patent valuation, studies of the northeastern region of Mexico.

Why did we do that? Because we are seeking your support, from BECC, from the North American Development Bank, to implement it. We know we were recently created. We have a prototype plant, where we need about $30 million pesos for the first plant.

Why is that? Because we are considering the entire value chain. The value chain comprises the collection, selection, transportation, temporary storage of used tires, their processing and conversion at our plant, storage of the three byproducts we have just shown you and their sale. The collection—we do want to emphasize that we've been contacting various municipalities in the border region and we've taken into account that there are collection centers. Collection would be directly from existing collection centers or, if there were none, we would be responsible for collecting the used tires.

Okay. Our financing. The financing that we are requesting here is $30 million pesos. We, in truth, we know we are new and that you almost always support well-established companies for expansion or growth, but we know everything has a cost. So we are requesting support, funding at a fixed annual rate of 10%, for a term of five years plus a one-year grace period, and the guaranties we offer are the infrastructure acquired and the patent.

These funds will purchase several things such as the transport system for the collection of used tires. We are going to have incineration furnaces, cooling towers, condensation reactors, tank trucks for coolant solution, tank trucks for the storage of light and dirty oils, a ball mill—that's for the generation of carbon black and its marketing—a packer, forklifts, a tank truck to transport oil. All of them, I want to stress, that the furnaces, towers, reactor and tank trucks are 100% Mexican development and technological innovation.

Okay. We have a schedule for constructing and installing the plant. That's why we are asking that the first year be a grace period so that we have those first six months for construction, installation and to begin operating.

How will we pay? That is the key point, right? How are we going to repay it? Well by simply selling our three byproducts, that is carbon black, steel and light and dirty oil. Carbon black is very useful for the industry of tire treads, fascias, tires, speed bumps. Steel is cast. We

can sell it as scrap metal. It's cast and we obtain all the material. And light and dirty oils, which is the container that I passed around to you and is liquid, that really, can be used as fuel, does have a high calorific value, but it's not the best way to use it. The best way is in asphalt companies. If you burn it, you pollute the environment.

The benefits of our plant for the community is helping to reduce thousands of tires. In our outreach efforts, which we did in the state of Baja California, we realized that their collection centers are already full. They no longer accept more tires. There is no longer any way to process them as the pyrolysis plants they tried to install, didn't work. The same thing happened in Sonora.

We did outreach in Nogales, where we have received the full support of the Director of Environment, Ms. Erica López, where she offered to facilitate our installation in Nogales provided, of course, that we obtain the $30 million in funding to put our plant there. Why in Nogales? Because in Nogales we can remove the tires from Mexicali, the entire border region of Sonora, bring them to Nogales and process them there. We want to stress that they have supported us in that aspect.

We will also transform the tires completely. That, I mean to say, that the three byproducts are of industrial use. And we don't do pyrolysis. We don't do thermolysis. Because they can be confused with us. We are different. We use oxygen for combustion, they don't. And we are environmentally friendly, as the vapors are concentrated and sent to the towers, and that's where our products come from. We are going to improve the cleanup of sites, enhance the quality of life of all creatures and reduce harmful pests and disease-carrying vectors. And finally, well, it all adds up. All the processes combine to reduce the problem of used tires, such as the processes in cement kilns, shredding, pyrolysis, thermolysis, repaving, waterproofing, among others.

The goal of government and society is to eradicate the dumping, burning and stockpiling of used tires, keeping in mind that the world is constantly changing, and these changes are in favor of the environment. That's why it's important to support environmentally-friendly projects like our environmental incineration plant for used tires.

I really appreciate your time, for listening to me. I would like to mention that my team is there—Mr. Rubén Cabrero Molleda, Mr. Emanuel García Tovanche—who are the foundation of this team. So I do ask that, that you consider us. I know it's difficult because we are new. But we are committed, and not because different projects with support for pyrolysis, thermolysis and all that have failed. It means that we too are going to make it. We came to break out of that. So, my voice is shaking... I really thank you… and well thank you very much.

[APPLAUSE]

MR. BRAVO: Okay. We find this project very interesting and, of course, it's going to be reviewed.

Francisco Javier Ayala, from *Tratadora de Aguas de Delicias*. Is he here?

And from the *Federación Mexicana de Colegios de Ingenieros Civiles*, Oscar Cortes.[9]

It's Francisco Javier Ayala, I beg your pardon.

MR. AYALA: Ladies and gentlemen, good afternoon. Unfortunately, I am not the bearer of good news. Our company has the contract to design, build and operate the treatment plant in Delicias, Chihuahua, but instead of getting started, it's at the point of becoming a lawsuit. Last month the Chihuahua authorities came and wanted to terminate the contract, giving us minimal compensation. We have been working on this project nine years, supporting everything necessary.

I thank NADBank for having already authorized $80 million pesos in financing. Banobras, its contribution of $70 million pesos in grant funds, is also going to be wasted and unfortunately the works that should be getting underway right now are going to become a long-term problem. Luckily, we are in a country of institutions and laws, leaving us nothing else to do except appear before the Ministry of Government Services, before the Federal Tax and Administrative Court, to defend our rights. Unfortunately, that's the status of our project. We don't know how many years it's going to take. We don't know what's going to happen, but as a company, we always sought to provide the utmost support so that the city of Delicias, in Chihuahua, might have a high-quality treatment plant, and, well, what can I say, it's the only city in Chihuahua with more than 2,000 inhabitants that doesn't have a treatment plant. It has a population of 140,000 inhabitants. But well, sadly, I'm reporting the situation to you and that we just have to enforce our rights as a company. Thank you.

[APPLAUSE]

MR. BRAVO: Thank you very much. Excuse me.

MS. HERNANDEZ: I'd like to know, excuse me.

MR. BRAVO: Francisco.

MS. HERNANDEZ: Francisco, pardon me for interrupting. I would like to know the reason the municipal entity is giving you for this decision and a little more about how long you have been working on this project.

MR. AYALA: Well, the reasons they are giving us are supposedly of public interest, like now there is a little more water, that changes were made to the project, that Banobras would provide or wouldn't provide its funding, when of course, all the changes made to better costs for the entity were always approved by Banobras. And they are just telling us that they want an early termination, and they want to give us a few minimal expenses accepted by them.

MS. HERNANDEZ: How far advanced is the physical project?

[9] *Federación Mexicana de Colegios de Ingenieros Civiles,* Mexican federation of civil engineering associations.

MR. AYALA: Well, what we have done is the engineering work. Because we completed a design in 2010, a second design in 2013, and another in 2015. The construction work has never begun. Why? Because the agency's conditions precedent were never met.

MS. HERNANDEZ: They were not met. Okay. Thanks.

MR. BRAVO: Oscar Cortes. He is from the Mexican Federation of Civil Engineering Associations. He is proposing a mechanism for developing best practices for environmental infrastructure projects.

MR. CORTES: Good afternoon everyone. My name is Oscar Cortes Reyna. I am the Vice-President of International Relations of the Mexican Federation of Civil Engineering Associations. I want to thank you for the opportunity to be here with you and present a proposal. I would like to take this opportunity to greet some friends of mine, Dr. Carlos de la Parra, my good friend Carlos. Ms. Moreno-Ducheny, too, it´s a pleasure to see you. And obviously, special congratulations to Maria Elena Giner who has played an extraordinary role—and I would like to acknowledge that Maria Elena—for many years.

What I want to discuss with you is a little bit of what has been mentioned here by the authorities. I've heard concepts of transparency. I've heard concepts of building projects not necessarily based on political terms or the administration of some official. And all of that has repercussions on a thing called best professional practices.

The Mexican Federation of Civil Engineering Associations is the largest civil engineering organization in Latin America. We are represented in Mexico by 50 associations and our membership has more than 50,000 associates, including consultants, builders, managers, engineers who work on long-term planning in urban planning.

And my proposal is the following. I think it's time for things to turn out right. This issue is very important. And, but for things to turn out right, all the engineering processes have to be scrutinized and everything related to studies and final designs, which, sometimes, does not happen. The proposal that I'm making is a proposed agreement between the Mexican Federation of Civil Engineering Associations and to take advantage of the restructuring that is happening right now at NADBank and BECC, in order to import those best practices.

BECC already has best practices in many areas that we want to use, along with the certifications we have. And I think it is essential that throughout the border region, where we have several schools, it spearheads the development of green infrastructure using these best professional practices.

That is basically my proposal. I think it´s a great opportunity to take advantage of this new era that is underway and, well, I want to mention that we, the civil engineers of Mexico that I represent, are ready to work with you and I think it is time to do things right and, well, I am at your disposal. And that is my proposal. Thank you very much.

[APPLAUSE]

MR. BRAVO: From the company Oceanus Energía y Agua de México, José Alberto García and Thomas Dubose. They have asked to present a reverse osmosis and energy storage project for Sonora and southern California.

MR. DUBOSE: Thank you very much for the opportunity to be here and to present this idea to you. It's an idea that originated in Palo Alto, California. It's an American company, which subsequently we incorporated the company in Mexico, Oceanus Energía Agua de México. I'm going to present the general idea of this company.

The idea is to do something—and taking advantage that Oscar from the Federation of Civil Engineering Associations is here—because we are integrating a concept, a concept that already exists and has proven successful for a long time. It's electricity production through an integrated system. That is, this, what we are doing is combining two fully proven technologies, but that used intelligently as proposed by Oceanus generate a synergy that allows operation, reducing investment costs and improving, in many ways, the operation of both systems. In the United States, it's a new name just coined which is Integrated Pumped Hydro Reverse Osmosis System (IPYROS), which in Spanish we call '*sistema integrado de osmosis inversa de bombeo hidráulico*.' The reverse osmosis system is well known. It's used worldwide. The technology is continually being improved, but used in combination with the integration we are proposing, provides some benefits that we are mentioning here.

What we are doing is pumping seawater to a high elevation during periods of high energy production when the cost of energy is low. And on the other hand, this water, which is stored at an elevated level can be released during peak demand, so we are practically generating the concept of a battery.

The Association of Engineers did a study about ten years ago in which it proposed to the Federal Electricity Commission that it do this in various sites in Mexico, but it was not using a pump system, sorry, a seawater pump system. This is something that is already being done in in the world, in a zone in Okinawa. Now I'm going to show you a slide where you can see this.

Now, while that water is held at an elevated level, ready to produce energy, some of the water, not all of it, some of the water is diverted to a desalination process. So the flow and pressure of that column of water is used and that's precisely the critical element required in the reverse osmosis process. So we are using less energy. Moreover, we are going to produce our own energy. As a result, we have desalinated water at a much lower price, since as everyone familiar with the topic of desalinization by reverse osmosis, the highest cost of the operation is the cost of energy.

Another environmental benefit that it has, is that, as only part of the water is used to produce desalinated water, as we all know in the reverse osmosis process there is what is the production of brine, which has a high concentration of salt and that its discharge to the sea is what causes the controversy on the issue of desalination plants all over the world.

The process proposed by Oceanus is to, that the brine resulting from the process, as a minimal part of the water used in the energy production process, keep it and gradually

release it with the water from the energy production process, which will dilute the brine so that the water leaving will be practically in the same condition as when it entered the energy process, which doesn't transform it. It's important to mention that this is done with the utmost care to prevent the transmission of salt water to the subsoil, as this has a system that helps and prevents this situation.

Now…it wasn't … Now I can say: 'My project is very good.' 'It's a novel idea.' Well, I'm the one who is proposing it. In this case what we did is seek an alliance with one of most prestigious global engineering companies in the world. In this case it's AECOM. It's a company with a presence in 68 countries already. AECOM in Mexico, just to mention an example, is currently managing the Mexico City airport project. And so, well, we pursued that concept of dual-technology synergy, validating it with them and, fortunately, we commissioned them to do a study and we could confirm that our assumptions were correct. And that there was an opportunity, through that synergy, of reducing infrastructure investment.

On the slide you can see an energy storage plant that is in the area of Okinawa. We have visited it. We have also worked with J-Power, the Japanese company that operates this system on the island of Okinawa, producing 30 megawatts. In the case of the project below, it's a project that is being designed for Chile, where the water is only going to be used to produce energy. [*Ringing telephone*] I apologize. My daughter is calling me. Sorry. And this process in Chile doesn't include—it's located in the Atacama Desert in Chile—it doesn't include desalination, only energy production with a very interesting variable. It may be incorporating solar energy for the pumping process.

So, in the case of energy, the project allows for its storage. It supplies energy at a lower cost than any storage battery. So, the idea is to buy cheap and sell high when it's at a peak, thus maximizing the national grid. Those who are familiar with energy, well, they know that there is going to be a power market, that there is a certificate market, etc. We are analyzing different scenarios where this project might be a perfect fit and also the areas where it could be built. In the case of Mexico, we have analyzed areas where it could be located and have fortunately identified several zones that could be a perfect fit.

In the case of the project, it allows the integration of other types of energies, renewables such as wind, such as solar. In fact, it helps stabilize the grid. Remember those energy sources are intermittent. So, this project can, at some point, work to stabilize the electricity grid.

In the case of water, well, with reverse osmosis, it can be quite a 'resilient' and long-lasting source of water. 'Resilient' is the term in English and obviously I sought a way to translate it.[10] So, there are areas in the country, particularly in the northwest. We have for example Baja California. The case of Sonora, where water shortages are a growing problem and may be addressed by a project like this one.

Oceanus' solution, well, it provides two technologies, and it is very important to mention here that they are completely proven and, therefore, there is no technology risk. What it is doing is simply combining both in a smart way. The design of these types of developments

[10] In Spanish, he used the term "resistente," which means robust and enduring.

can be, is versatile. It can be scalable. It can be versatile. It can produce more energy or more water. It can be modified. This system can be used in remote areas. In the mining industry, for example, both elements are used, and the issue of water is really critical, by the way. This application could at some point help solve problems for the mining industry.

In the case of Mexican goals, well, we are definitely helping to achieve those goals. I'm not going to list them. I think everyone is familiar with them, but it reduces the electric load during peak demand and obviously brownouts. Low-cost, off-peak energy, as I said, is captured and can be offered during peak demand. It's very important to note the savings in the water process. Because it uses the pressure deriving from the water load at the top, right? So, on the other hand, the synergy of both helps reduce capex during construction and obviously during operation as well. And these are the requirements, more or less, in energy projects of this type and their emissions into the air and obviously what a system of this type would help prevent [unintelligible].

We have studied sites in various parts of Mexico. We've sites identified in Baja California. We've sites identified in Sonora. In the upper part of the slide, you can see the coast of Hermosillo, the coast of the municipality of Pitiquito. There are various sites where this could be perfectly implemented. We've identified those sites, we've studied them, we've assessed them, and we know the conditions exist to implement a project of this type. We've approached the federal, state and municipal authorities. We are in ongoing discussions with them, fortunately. My congratulations, truly, to the state officials here because everyone is committed to finding solutions to the water situation in Sonora and of course there is a lot of interest in the issue of energy as well.

This is the contact information. We greatly appreciate the opportunity you have given us to present this project and remain at your service. Thank you very much.

[APPLAUSE]

MR. BRAVO: Your daughter hasn't called anymore, hey?

If anyone wishes to participate, you can fill out these forms. My colleagues, Irma, who is right over there, and Armando. Okay?

We have a request from Juan García Guerrero, Director of Strategic Projects for Reynosa, please.

MR. GARCÍA GUERRERO: Good afternoon, everyone, Board members. I am Juan García Guerrero. I represent Dr. Maki Ortiz, Mayor of Reynosa, Tamaulipas. She, like Governor Javier García Cabeza de Vaca, just took office about six, seven months ago. And the truth is she found a city and a border with many complexities and complicities. Okay, complexities, that way I won´t be wrong again. Complexities. And, the reality is that, at the end of the day, it's a city with the highest growth rate nationwide. Three years ago, Reynosa reached a population growth rate of 8%. Now, we are close to one million residents and with that, a number of problems have surfaced. The NADBank has already provided assistance at different times. We are currently carrying out a project to renovate some pump stations that had not been repaired in years, an investment of close to US$7 million that NADBank provided in grant support.

So, it is… Truly, the need for funds is much greater. We're going to go rapidly so I don't take up too much of your time, because... If you could go through them more quickly, or I don't know how…

Okay. We have adhered to different standards, mainly international standards, in order to access loans, not only from the North American Development Bank and assistance from BECC, but also from the Inter-American Development Bank and the World Bank. Why? Because we are focusing on creating projects in the medium and long term. We know that short term the issue is complicated given the situation of country and the state. Neither the State nor the City have sufficient resources to develop what is required to address the series of demand for services. So, we have been looking for a way to, to be able to find loans, assistance, inviting different agencies, inviting investors, in particular, to develop hand in hand with us. Unfortunately for Dr. Maki Ortiz, she is only going to be mayor for two years. The change of government coincided. In 2018 the government is going to change. The governor will continue with his term of five years—six, five years and eight months, almost six years—but the Municipality is going to return to... with the possibility of re-election in a complicated environment in Reynosa. So, what we want to leave is, well, to leave it in a way, a legacy in terms of the studies that are being done, so that in the future both the city and the state can take advantage of them.

Among them is the Santa Ana Wind Farm, which is a property that NADBank provided the money to purchase that land. It's about 80 hectares that are currently not in use, where a treatment plant is planned or was planned, that is Plant III. Reynosa produces approximately 1,500 liters per second of water, I mean, yes, per second of wastewater. And right now, that wastewater, well, part of it, is poorly treated. We have two plants, partially operating. This plant, which would be the third one, we would really like—a little further on I'll talk about what is now the water utility's master plan—but on that land, which is 70 hectares, which is an area with very abundant wind, for wind energy. The Municipality, along with COMAPA, consume a lot of energy.[11] They pay about $20 million pesos a month for electricity. So, I think that in the end the project is thus… it can finance itself, to use the energy, both the municipality and the utilities we have in Reynosa. And well, the entire project is already done. The cost, which was estimated at, more or less, US$90 million. And well, that we'll now see generate close to 30 megawatts per hour.

So, that is... We also have an urban mobility project in the area of public transportation. How to generate also, it´s a... Reynosa, as I said, now has almost half a million cars. It is very easy to import cars through the border, and everyone has two or three cars at their home. So, the reality is that it becomes complicated and, besides generating pollution, there is no control in that regard. So, it's to develop several infrastructure projects in order to implement, in the end, an efficient urban transportation system and gradually eliminate the use of cars and pollution. So, this is basically where urban mobility comes into play and where we want to go.

This is Reynosa now. It is a mess everywhere, transportation and the cars. And well, we know that NADBank finances urban planning, urbanity and transportation projects and that´s what we are looking to do. This is a model that we have from people that have

[11] Comisión Municipal del Agua Potable y Alcantarillado (COMAPA), local water utility.

begun supporting us on how to give pedestrians priority in the cities, I mean, in highly populated subdivisions, and how to provide for their transportation safety. So, this is a project in the center in order to… It´s a project that we are have now that, in a way, is moving forward in what are called smart cities in Spain, especially in Barcelona. La Salle University in Barcelona is helping us to complement this study.

It's a building, too. We have a mess in terms of government efficiency. A commercial square with a building was created for that purpose. Currently, the Reynosa water utility, the largest utility in Tamaulipas, has about 250,000 users. It has several collection deficiencies due to very old systems. So, out of 250,000 users, only 90,000 are paying us. And that, well the offices are in such poor condition to manage that utility. So, it´s a struggle to... The offices of the utility are currently on this property. It is a block owned by the Municipality and we want to use it for this purpose. The Federal Government has already visited, progress has been made on the project to support part of the construction, and I think things are going well in this area. That, also in the case of the façade, it´s a material that, in the end, also helps to generate power, to capture and generate energy. So, it is a project with a lot of sustainability and where we think we can get the most out of the investment and the facilities, in addition to seeking administrative efficiency.

We have this urban train project, basically electric, in several... that would basically cover the entire city, to connect with the bridge to the United States. Lately, there has been a very large drop in tourism to the United States because of security concerns. So, the idea is for people to get from bridge to bridge, in addition to serving the community, which is the most important thing, but so tourists can hop on without any security concerns and can move around the city with that certainty. This is a proposal that has also already been presented. There are already people, I mean, companies, interested in investing in the urban train. We are currently doing the studies and the feasibility and permits, right? So, this is also a big investment, but in the end, I think it's worth betting on it. So that's what we have, no?

That is a model of the type of transportation that can be provided, based on mobility of the people and, well, the study has already been done to determine what´s best for the city. Now it's only a matter of completing the studies and then find out the participation of the three levels of government, what the international banks can contribute and the participation of the company that builds it.

We currently have in Reynosa, what we don't have, we don't even have a fixed landfill. There is a private one. We are disposing of garbage in open air dumpsites without any control. And that facility, rather than Las Anacuas, which is a large plot of land that is being… Reynosa currently has close to 3,000 garbage collectors with horse-drawn carts dumping garbage in illegal open-air dumpsites. Reynosa generates about 800 tons of garbage a day, of which I think only 200 are deposited in a landfill that is privately owned. The rest is dumped at unauthorized dumpsites. So, that´s the facility with technology which, well... Here, this is… Actually, in Mexico, many people have come to offer facilities for incineration, recycling. We have visited some. Some are successful. Most are struggling to operate. Here we are looking for a model that can be a private investment and ultimately can be self-sustaining, right? It's also a US$45 million investment that we are also going to see how it might be supported.

That is the location. As you can see, Reynosa is a city that grew every which way. So, now we have a lot of problems. That is the model, no? I mean, if you have any questions, stop me. I´m stopping because we are running short of time, and I want you to get a general overview, okay?

We have the street lights, which is a... to change the lighting... We have close to 60,000 lights in Reynosa. As I was saying, they use a lot of electricity. We are going to change to LED to reduce costs and also provide better lighting in the city. That is, we have about 60,000, of which about 15,000 don't work or only partially work. So, it's a radical change to all this, right? There is already a proposal from several companies that make LED lights from around the world that actually, with the savings, which would reduce consumption almost in half, the project can be paid off in 8 to 12 years, right? Without having to hurting the municipality´s budget, which is also very small. This is what power uses per month, close to ten million pesos, and this is what would be used, half of it, five million.

We also have the issue of having a lot of maquiladora industries in Reynosa. I believe it is one of the largest after Ciudad Juarez and Tijuana, or very close to them. About 200,000 jobs are generated by maquiladoras. Naturally, maquiladoras have been here for nearly 30 years, 15 of them at their peak. And there is a lot of qualified workers that can no longer support themselves with the wages they earn. So, we have the idea, also, with the assistance of a U.S. and European university, of creating a city of knowledge to make way for talented young people. In other words, to provide a high level of training to young people so they can bring that knowledge and develop cutting-edge technology for the city and, in the future, make Reynosa a different city, that is not only involved in manufacturing, but also in process development. Well, that's what we have. It is also an interesting investment. Dr. Maki Ortiz is already very involved in the issue. We have the property. We have part of the funding to make the investment. We are also looking for funding in several places. So, as I said, it´s a matter of being able to develop talent. The talent of the young and not so young, to raise the level, ultimately, of the city´s technical contributions.

That's the area… of investment that would be made. Now it's going back. Was it finished? It was missing the, the…. yes.

Well, the only other thing missing is that of the water utility, which is precisely,… BECC and NADBank helped us with the master plan, with around US$150,000 to develop the master plan for the Reynosa water utility, which quotes an investment of $4 billion pesos, about US$200 million, that must be made in order to provide better services in Reynosa.

Thank you for your time. Thank you very much NADBank.

[APPLAUSE]

MR. BRAVO: We have several people who wish to participate. We ask that you be very brief, 5-7 minutes max. We have a presentation from the mayor of Valle Hermoso, with a solution for water, transfer station and solid waste equipment projects.

MR. TORRES ESPINOZA: Good afternoon, everyone. With the permission of the presidium and the audience. I'm presenting some very simple topics. Valle Hermoso, a charming city that measures a thousand square kilometers, but is the breadbasket of

Tamaulipas, and I am almost certain that it is the breadbasket of Mexico. We have many qualities, but one flaw that we have is that we are located at the end of the Rio Grande. The Rio Grande, where it flows, there are many industries—many of them were already mentioned by my colleague from Reynosa—where there is a lot of pollution. A lot of technological industry produces lead, copper, arsenic, sulfides, and all that is carried along by the Rio Grande.

Unfortunately, Valle Hermoso has a water treatment plant that was built 50 years ago. It currently produces 200 liters per second. Its capacity should be 400. In addition to that, the water we receive is raw. What is raw? The water comes directly from the Anzalduas, which gets its water from the Rio Grande, it passes through Reynosa where there is a lot of pollution, continues along the Rio Grande and flows down to Valle Hermoso. We take the raw water from a canal. We don't get enough to treat it. So, we are producing neither quality nor quantity.
So, one of the topics that I want to touch on and I'm asking you, is to *focus on* small or emerging cities. Stop treating the monsters that are self-consuming. Help the medium-size cities, as they are the future. Big cities are going to consume themselves: Mexico City, Guadalajara, Monterrey. We need to support those cities. Don´t wait until the patient is in critical condition to give him chemotherapy. Let´s treat them before that.

We have that plant, and we have three smaller plants, because Valle Hermoso has towns and *ejidos*.[12] And none of the four works. They all produce 50%, so we provide water eight hours a day. That is a problem.

The other big problem we have in Valle Hermoso is pollution. We don´t have a landfill. We don´t have a transfer center. We have 12 trucks that are 13 years old, operating by the grace of the Holy Spirit and because the driver makes the sign of cross every morning and they are working. We just bought them tires. When we took office eight months ago—I'm a doctor. My specialty is general surgery—I couldn't leave the illegal dumps. I couldn't. It was unethical. It was against everything. We eliminated them. They were five kilometers from the city, with prevailing winds. So, every day we are taking 70 tons of waste to Matamoros which has a joint landfill. But it is equivalent to 70 kilometers, 35 there and 35 back. We waste man-hours, tire-hours, equipment-hours and well diesel. We really can´t do it anymore.

So, another of the requests that I would like to mention. We need support for the water treatment plants. We need a transfer center. Now, I don´t want all the money. Help us with something. Tamaulipas is in crisis. It´s in ruins. It's going to be finished soon. And add to it the violence. I don´t think we´ll be taking off in some five years. Transportation. Help us with transportation too. Please.

I came here, as I said last night, at the very least, I can get it out of my system, and if they help me, that would be great.

And there´s another problem…

[APPLAUSE]

[12] "Ejido" refers to communal land held by rural communities and generally used for farming and ranching.

There is another problem that I dare to mention because I listened to the mayor of Hermosillo who said that, in short, that we have to put our noses to the grindstone. So, in Valle Hermoso, we have an explosion of cancer. I studied general surgery. I have postgraduate studies in diabetic foot, angioplasty, gastroenterology and chronic wounds. Six years ago—I arrived 12 years ago and for six years I was the director of a hospital. And I was struck by the explosive increase in cancer: thyroid, breast, cervical-uterine, lymphomas, adenomas. And you wonder, 'Why so much?' And I began reading some of the statistics for Rio Bravo, Matamoros and Valle Hermoso and it turns out all three are on the rise. So, I thought about calling it the triangle of death because we form a triangle. And paradoxically, in the middle of that triangle is a thermal power plant. A thermal power plant that has no sanitary control for anyone. First, it was French, then Spanish. It is currently an American plant. And guess what? Not a single volt is for Valle Hermoso. Not a single volt is for Tamaulipas and not a single volt is for Mexico. All of it goes neatly packaged to the United States, to Texas. And it caught my attention. Why so much cancer? Why so much secrecy in that facility? And, we went to investigate. And it really is deplorable the conditions in that plant. It has a permit for a single facility or a single tower and it has six. They have waste, of course, sulfur waste, forming, there in the drain that empties in. It's forming like reefs. I said to myself, if they don´t help me, at least I can develop a tourist center.

[LAUGHTER]

Reefs are developing in the drain. All glassy, crystalline. There is nothing alive there. The plants grow, but underneath they are burned. So, I want to make a formal complaint. I want someone to listen to me. I am tired of seeing the people of Valle Hermoso slowly dying like guinea pigs. On top of that, it's an agricultural town. We pesticides. We have fertilizers used indiscriminately. There´s not even a collection center for seed bags. And you know there should be a collection center for that.

My question is, who do I go to? My question is, how do I do it? Because we are all dazzled by shiny coins, but that shininess is so fleeting that we don´t even live long enough to enjoy it, because we either die of cancer or we die by violence, which is the same. So, tell me what to do.

MR. HINOJOSA: We'll talk after the meeting here in the reception. And we also have people there that can, we can begin to obtain all the contacts and then, well, continue the dialogue.

[APPLAUSE]

MR. BRAVO: Is Miguel Ángel Arvallo here? No?

Okay, Luis Pinto, General Manager of the Tamaulipas State Water Commission with a special message. We ask that you be brief Luis, please.

MR. PINTO: Good afternoon everyone.

To begin, I would like to share the following statement from the United Nations: '*Water is crucial for sustainable development, including environmental integrity and relief from poverty and hunger. It is indispensable for human health and well-being*.' We are sharing this precisely because we are determined in Tamaulipas not to leave everything at declarations and good intentions. What should we do? What direction should we take? In principle and in light of this statement, it makes sense to start with the goals of sustainable development.

As we all know, on September 25, 2015, 193 world leaders in the framework of the United Nations committed to pursue 17 goals to achieve three extraordinary things within the next 15 years. Almost two years have already passed. Eradicate extreme poverty, fight against inequality and injustice, and combat climate change.

Goal No. 6 of these 17 consists of guaranteeing the availability of water and its sustainable management, as well as wastewater treatment and its reuse. This goal demonstrates worldwide recognition that water not only fulfills the role of giving and sustaining life, but is also is an indispensable factor for other processes of a much deeper social, productive or industrial nature, as well as takes part in innumerable chemical, biological and physical processes and reactions. And all those processes lead to the care or degradation, as the case may be, of the environment.

These 17 global goals have a 15-year term. And in Tamaulipas, we have already begun to commit ourselves to these goals, establishing lines of action in the 2016-2022 State Development Plan, in line with these goals to ensure their complete fulfillment. Why do we want to ensure their complete fulfillment? Because achieving Goal 6 would mean that in 2030 the planet and consequently Tamaulipas would be meeting seven basic points, of which I want to highlight two... four, pardon me: universal and equal access to water at an affordable price for everyone; equal access to wastewater treatment and adequate hygiene for everyone; improve water quality by reducing pollution, eliminating dumping and minimizing discharges of hazardous chemicals and materials, reducing the percentage of untreated wastewater by half and a substantial increase in recycling and reuse; implement integrated water resource management at all levels, including through transboundary cooperation.

Moreover, with respect to creating and consolidating of a new culture of water care, it is time to be very clear, efficient and very decisive, beginning by recognizing that we cannot do it alone. That the general public and its organizations must be able to count on our advocacy and all the government support possible, so they can fulfill their leading role in this issue, since water cannot be created or produced, it can only be taken care of. Therefore, without a culture of caring for water, we are taking steady strides towards shortages. It is very painful to know that it is precisely the lack of care for water that poses the greatest risk for its loss.

A topic of great interest in water resource management has been the role of the governments. In this context, there is a document prepared by the UN, entitled *Water: A Shared Responsibility*, which very clearly underscores that one of the main problems caused by scarce water supplies that limit people's access to this vital liquid, has to do with the disruptions sustained by the environment in general and water resources in particular. However, these problems could be greatly reduced if governments

acknowledged their shared responsibility for the water crisis. Therefore, the second United Nations report emphasizes that the key element of this crisis is closely related to governance.

Tamaulipas is not exempt from this governmental crisis. History shows this. Besides droughts, shortages and other natural factors, we can add poor water management, pollution, over-exploitation, lack of technology and infrastructure, inadequate administra— excuse me, inadequate administrative processes and, in particular, the lack of a culture for taking care of water. Consequently, all this translates into significant deficiencies that prevent the processes of social order and inclusion, as well as productive and industrial processes, and especially environmental processes.

In Tamaulipas, as well as the rest of the world, environmental degradation and lack of clean water pose fundamental challenges for sustainable development. Socioeconomic progress cannot be sustained if in Tamaulipas we don´t take actions to address the water cycle issue, which basically consists of the following: Number 1. With respect to water production suitable for treatment, Tamaulipas belongs to two administrative hydrological regions: the Rio Bravo and the North Gulf. The availability of water in the two hydrological regions, the state has a deficit. Moreover, this low availability is due to geographic and demographic distribution, little rainfall, pollution and solar radiation and, thus, evaporation, as well as the presence of brackish water and saline soils.

As for water transmission, Tamaulipas, even though it has received a good response in terms of financing, particularly from NADBank, urgently needs to upgrade its water catchment, diversion and transmission infrastructure, such as aqueducts and reservoirs.

In terms of water treatment. With respect to the water treatment plants installed in the state, increasing their production capacity is a priority and above all preventing water losses caused by the processes due to defects in the systems, due to the excessive use of reagents, due to failure to upgrade and provide preventive and corrective maintenance, as well as the obsolete equipment.

How is water distribution in the state? Despite having 95.9% water distribution coverage, more than three percentage points above the national average of 92.5%, the physical condition of the system has severe deficiencies mainly due to the age of the installations, which have exceeded their average useful life. This circumstance compels us to move more quickly in replacing and expanding the system. Otherwise, we will be losing water due to leaks, which implies a discrepancy of about 37% between the amount of water leaving the treatment plant and the amount that reaches Tamaulipas households. Likewise, maintenance programs demand that all utilities improve their financial capacity, where liabilities may be the first obstacle to overcome, and thus strengthen their maintenance funding, which currently has shrunk.

If there is one thing that Tamaulipas has benefitted from as a result of NADBank, it's financing for investments in treatment plants. However, it's an area that needs to be delved into further, especially in technology and scientific research.

Members of the BECC and NADBank Board, in conclusion, let me tell you that the challenge we face on a day-to-day basis is tremendous, but it will never be impossible to

overcome. The Governor of Tamaulipas has called on us to not retreat from this generational responsibility. And he knows from his term as mayor, the value that the sister institutions BECC and NADBank add with concrete solutions. Therefore, we come here to lay out the four pillars to respond promptly to Goal 6, Sustainable Development, which are the following: address the supply deficit in our two hydrological regions, as well as the rehabilitation and modernization of irrigation districts; take steps to obtain funding from international programs in this area, financing from development banks and analyze the feasibility of public-private investments; promote technological and scientific development in water management, as well as to improve infrastructure; and finally, promote and consolidate a culture of caring for water. Thank you very much for your attention.

[APPLAUSE]

MR. BRAVO: We have three more speakers. We ask that you take no more than five minutes please, because we are running out of time. Hernán Escalante, Director of Public Services in Caborca.

He requires support for the construction of a sanitary landfill and a treatment plant. Please.

MR. ESCALANTE: Good afternoon. I am grateful for the invitation as well as my colleagues here. I'll be brief. Actually, as I stated electronically, the current concern of the government, the same as my fellow speaker who talked about the issue of the environment, is that we currently don´t have a landfill. We have problems with clandestine burns within the dumpsite and this, well, it's getting worse every day, right? So, really, the statement that I´m pleased to come make at this time is actually your support so we can have funding and put an end to this problem, which is almost, almost eminent, right?

In terms of figures, the municipality of Caborca is growing annually by 4,000… 4,500 households a year. So, like my fellow speaker, well, we also don't have the necessary infrastructure. Currently, to provide service to a community of 100,000 residents, we have eight collection trucks. So, we are asking for support for this landfill that we want, well very, very much, for our municipality. Thank you very much.

[APPLAUSE]

MR. BRAVO: The Secretary of Urban Development and Environment of the Government of Chihuahua has asked to speak. Dr. Cecilia Olague.

DR. OLAGUE: Good afternoon. I´m taking this opportunity to report to you right now, in particular, to highlight our great tradition of working together, the State of Chihuahua and the States of Texas and New Mexico. I believe there have been 22 years of substantive achievements in the areas of water, wastewater, municipal solid waste and paving projects, improving governance and fortifying institutions. I think it has been a very valuable joint effort, as I said. We are grateful for the support we have received from Maria Elena Giner. We wish you the best of success.

I would also like to highlight the commitment made by Governor Javier Corral to care for and protect the environment of our shared border. He has obtained more than US$300 million to support integrated public transportation systems in Ciudad Juarez and

Chihuahua City, which is a fundamental way to improve the quality of the air we breathe and improve the levels of well-being and quality of life.

Well, I would like to mention a concern that… we are very confident that what is happening, this merger we are seeing of NADB and BECC, is really going to be a watershed and will strengthen the work that we have developed and that has been successful, but we still have a lot of problems. We just heard from the mayor of Valle Hermoso. He's not an exception. This shared border has many serious issues. We drink the same water and breathe the same air. I think we need to keep working. We need to strengthen this common history, these efforts, the gains we have made by learning to work together along this 3,000-kilometer border. It is vital for the survival of the two countries that we succeed in overcoming the challenges that exist in order to continue working together for improvements… to strive for greater levels of well-being and quality of life along the border, and so we can truly find ourselves over time with new achievements and mutual stories of shared success. Thank you very much.

[APPLAUSE]

MR. BRAVO: We have one last speaker, the Director of Projects for the Municipality of Nacozari, José Ramón, excuse me, Ramón Márquez Vera.

MR. MÁRQUEZ VERA: Good afternoon. Thank you for inviting the Municipality of Nacozari de Garcia, Sonora, to come and share these concerns with you. Also on behalf of the mayor, Eduardo Encinas, who is here with us.

And indeed, we are here to ask the Board of Directors, the officials of BECC and NADBank and the federal officials, to help us with three essential things. First, we already have the technical studies, including some already endorsed and funded by NADBank and BECC. One has to do with the remediation of environmental balances. The remediation of mine tailings in the city of Nacozari. You probably don´t know where the city of Nacozari is, because sometimes we are points so small that even we can´t see them in the geography. But, digressing a moment, we all share global problems. That is, we have them, those of us who live in big cities like this one, but also those of us who live in Nacozari de García, which is a city of 15,000 residents, but we suffer the same pollution problems, the same migration problems, the same problems with water supply, quality, etc.

So, going back to the issue at hand, this petition that we are going to submit to you is specifically for you to help us finish for good three issues. One, the project, the one for remediation of mine tailings is in 14.5 hectares inside the city. Why? Because these landslides to, these open-air dumps, are shifting toward the city and are at imminent risk of invading the homes that border these dumps. In addition, the studies done by the University of Sonora with your support revealed high contents of heavy metals, such as those you already know about, lead, arsenic and others.

Project two is the one that has to do with a wastewater treatment plant. Because our little more than 30-35 liters of urban wastewater, residential wastewater, unfortunately, is being discharged untreated in the riverbed, the channel of the Nacozari River and from there, all the sludge flows to the rest of the municipalities downstream. That, of course, affects our neighboring municipalities much more than us, because luckily we are on high ground.

But, that is what is related to wastewater. The technical studies are already in this document.

The other project has to do with a treatment plant, a water treatment plant, excuse me, for the city. A 32 liter-per-second facility, because our supply come from surface water. It comes from reservoirs. And you should know that the case of Nacozari is the third largest municipality in mining production. We are ranked third in metal production nationally. And so, this has occurred because those companies have modernized, have become more efficient and have surprisingly succeeded in scaling up this business, which, ultimately, is what gives life and sustenance to the area. But when we shift to public services, such as drinking water and the constitutional responsibility of the municipality, well, it turns out that the water is obtained from a reservoir and it is surface water. It begins to flow down the river and we collect it in some galleries. Due to the city's population explosion, well, these galleries are now contaminated because houses have been built on top of the galleries and then discharges that fall into the river, etc., etc.

In conclusion, these are the three projects for which we are very interested in obtaining your support and, of course, we appreciate the opportunity you have given us to come and participate here with you today. Good afternoon.

[APPLAUSE]

MR. BRAVO: With this speaker we conclude this public meeting. Thank you very much. It was a very successful meeting, very rich, very fertile, with a lot of participation, as well as historic because it marks the end of the very successful career of María Elena Giner. We will keep her in our hearts. Thank you, María Elena.

We have a reception here at the back of the Fiesta Palace. We are going to continuing chatting like friends we are, one family. Thank you very much.

[APPLAUSE]

[MEETING ADJOURNED]