



# **CERTIFICATION AND FINANCING PROPOSAL**

## **OSME MEDICAL COMPLEX PROJECT IN SAN LUIS RÍO COLORADO, SONORA UNDER THE NADB COVID-19 RECOVERY PROGRAM**

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## EXECUTIVE SUMMARY

### OSME MEDICAL COMPLEX PROJECT IN SAN LUIS RÍO COLORADO, SONORA

#### UNDER THE NADB COVID-19 RECOVERY PROGRAM

**Project:** The proposed project consists of the design, construction and operation of private medical facilities that include a hospital and a medical specialties center in San Luis Río Colorado, Sonora (the “Project”). The medical facilities will increase healthcare services in the region, benefiting patients in Mexico and in the United States. The Project will incorporate sustainable construction techniques, as well as thermally efficient building materials, which will reduce the water usage and energy consumption of the facilities.

The Project will be the first medical care facility to be financed by NADB in a community that is currently experiencing high demand for medical services caused by the COVID-19 pandemic.

**Project Objective:** The purpose of the Project is to increase affordable and sustainable healthcare services for residents of San Luis Río Colorado and nearby U.S. border communities and, in particular, for U.S. agricultural workers and their families.<sup>1</sup>

The Project will also help reduce the spread of COVID-19 in San Luis Río Colorado and neighboring U.S. counties by increasing health services in the region.

**Expected Outcomes:** The estimated environmental and human health benefits resulting from the implementation of the Project are:

- Increase healthcare services in the region by providing up to:
  - 33,800 primary care physical exams a year once the Project is operational and reaches full capacity.
  - 67 additional hospital beds, which will increase the number of available hospital beds in the city from 117 to 184, which represents a 57% increase for San Luis Río Colorado.<sup>2</sup>

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<sup>1</sup> U.S. agricultural workers were designated as “essential workers” by the Centers for Disease Control and Prevention during the COVID-19 pandemic (<https://www.cdc.gov/vaccines/covid-19/categories-essential-workers.html>).

<sup>2</sup> Source: Number of current hospital beds provided by the Sponsor, *Market Analysis of the Feasibility of the OSME Hospital* prepared by Génesis Consultoría (2016).

- A 43% decrease in water consumption compared to a typical healthcare facility.<sup>3</sup> This decrease represents 15,815 m<sup>3</sup> (4.2 million gallons) a year, similar to the annual consumption of 60 households.<sup>4</sup>
- An 18% decrease in electricity consumption for ambient air-cooling purposes compared to the baseline building in Mexican regulations,<sup>5</sup> which represents 257 megawatt-hours (MWh)/year of electricity, similar to the annual consumption of 34 households.<sup>6</sup> This electricity is equivalent to the displacement of 83 metric tons/year of carbon dioxide (CO<sub>2</sub>) emissions.<sup>7</sup>

**Population to Benefit:** Approximately 33,800 residents per year once the Project reaches full operating capacity.<sup>8</sup>

The addressable market for the Project consists of:

- Patients with U.S. health insurance from one of the insurers for whom the sponsor is a provider.
- Patients with U.S. employers who pay the sponsor directly for care.
- Patients who self-pay.
- Patients with private insurance who live in Mexico, some of whom have insurance from a U.S. employer because they work in the U.S., while others have private health insurance in Mexico.

**Project Sponsor:** Novem Uno Corporativo S.A. de C.V.,.

**Borrower:** Nueve Uno Integradora S.A de C.V., the special-purpose vehicle created to carry out the Project.

**NADB Loan:** Up to \$360 million pesos (US\$18 million).

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<sup>3</sup> Source: Based on data provided by the Sponsor, when compared to the water consumption of a hospital using typical water fixtures.

<sup>4</sup> Assumes a daily consumption of 217 liters per day per person based on the Water Utility Management Indicators Program (PIGOO) of the Mexican water institute, *Instituto Mexicano de Tecnología del Agua* (IMTA) and 3.33 persons per household according to the Mexican national statistics institute, *Instituto Nacional de Estadística, Geografía e Informática* (INEGI).

<sup>5</sup> Source: Data calculated by the Sponsor based on Mexican Official Standard NOM-008-SENER-2001.

<sup>6</sup> Assumes an annual consumption of 2,257 kilowatt-hours (kWh) per person based on data from the Mexican Ministry of Energy (SENER) and 3.3 persons per household according to INEGI.

<sup>7</sup> The CO<sub>2</sub> calculation is based on the potential emissions avoided as a result of reducing future demand on fossil fuel-based electricity equivalent to 257 MWh/year through the use of efficient construction materials and equipment and the emission factor for the state of Baja California, since San Luis Río Colorado is connected to the Baja California power grid. The emission factor was calculated by NADB based on the power generation portfolio of the state of Baja California and on the factor reported per technology in the 2018-2032 Mexican National Power System Development Program (PRODESEN). The resulting emission factor is 0.32229 metric tons/megawatt-hour (MWh) for CO<sub>2</sub>.

<sup>8</sup> Source: Project Sponsor.

# CERTIFICATION AND FINANCING PROPOSAL

## OSME MEDICAL COMPLEX CENTER PROJECT IN SAN LUIS RÍO COLORADO, SONORA

### UNDER THE NADB COVID-19 RECOVERY PROGRAM

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## 1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

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The proposed project consists of the design, construction and operation of private medical facilities that include a hospital and a medical specialties center in San Luis Río Colorado, Sonora (the “Project”), which will benefit residents in Mexico and the U.S., and in particular U.S. agricultural workers and their families.<sup>9</sup> The medical facilities will increase affordable and sustainable healthcare services in a region currently experiencing high demand for such services due to the COVID-19 pandemic, as well as provide first-time access to critical medical services, including a trauma emergency room, intensive care unit, cardiac and cerebral catheterization, cardiac and vascular surgery, CT scanning and a private blood bank, among others. Once the new facilities are operational and reach full capacity, up to 33,800 primary care physical exams are expected to be performed annually and the number of hospital beds in the city will increase 57%, from 117 to 184.

<sup>10</sup>

The Project will incorporate sustainable construction techniques and thermally efficient building materials that will reduce water usage and energy consumption. Specifically, the new facilities are expected to use 43% less water than a typical healthcare facility, saving an estimated 15,815 cubic meters (m<sup>3</sup>) or 4.2 million gallons a year, similar to the annual consumption of 60 households.<sup>11</sup> Likewise, they are expected to use 18% less electricity for ambient cooling purposes compared to the baseline building in Mexican regulations, saving an estimated 257 megawatts-hours (MWh)/year, similar to the annual consumption of 34 households.<sup>12</sup> This reduction in electricity consumption is equivalent to the displacement of approximately 83 metric tons/year of carbon

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<sup>9</sup> U.S. agricultural workers were designated as “essential workers” by the Centers for Disease Control and Prevention during the COVID-19 pandemic (<https://www.cdc.gov/vaccines/covid-19/categories-essential-workers.html>).

<sup>10</sup> Source: Number of current hospital beds provided by the Sponsor, *Market Analysis for the Feasibility of the OSME Hospital* prepared by Génesis Consultoría (2016).

<sup>11</sup> Source: Data provided by the Sponsor, in comparison with the water consumption of a hospital using typical water fixtures. Assumes a daily consumption of 217 liters per day per person based on the IMTA Water Utility Management Indicators Program (PIGOO) and 3.33 persons per household according to INEGI.

<sup>12</sup> Energy savings were calculated by the Sponsor based on Mexican Official Standard NOM-008-SENER-2001. The number of households is estimated based on an annual consumption of 2,257 kWh per person according to the Mexican Ministry of Energy (SENER) and 3.3 persons per household according to INEGI.

dioxide (CO<sub>2</sub>) emissions, as well as of other criteria pollutants (nitrogen oxides, sulfur dioxide and particulate matter).<sup>13</sup>

Finally, the project is expected to create 275 direct jobs during construction and more than 140 direct jobs once the hospital and the medical specialties center are operating at full capacity.<sup>14</sup>

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## 2. ELIGIBILITY

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### 2.1. Project Type

The Project complies with the requirements of the NADB COVID-19 Recovery Program (ProRec), as the sponsor is a private entity whose purpose is aligned with the ProRec objectives of supporting the development of projects with recognizable environmental benefits but focused on delivering significant health, social or economic benefits to border communities. As indicated in the third element of the ProRec guidelines, the type of projects considered eligible for this program include, among others, hospitals with green initiatives.

The Project will help to provide healthcare services and create new jobs in the region, while at the same time incorporating elements for the efficient use of water and energy. Moreover, the Project will help meet the demand for healthcare services related to the COVID-19 pandemic, while preserving and protecting the local environment.

### 2.2. Project Location

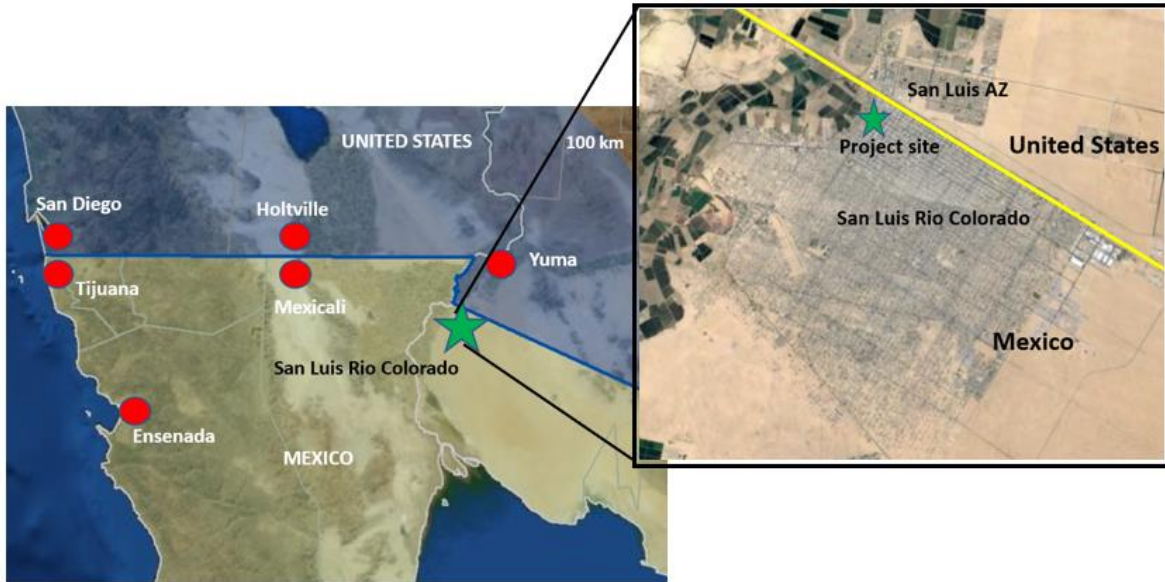
The Project will be developed on approximately 3,000 m<sup>2</sup> (32,300 ft<sup>2</sup>) of private land located in the city of San Luis Río Colorado, in the northwest region of the state of Sonora. The city is adjacent to the U.S.-Mexico border, directly south of the city of San Luis, Arizona. The coordinates of the Project site are 32°28'52.98"N latitude and 114°47'02.12"W longitude. Figure 1 illustrates the geographical location of the Project.

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<sup>13</sup> The CO<sub>2</sub> calculation is based on the potential emissions avoided as a result of reducing future demand on fossil fuel-based electricity equivalent to 257 MWh/year through the use of efficient construction materials and equipment and the emission factor for the state of Baja California, since San Luis Río Colorado is connected to the Baja California power grid. The emission factor was calculated by NADB based on the power generation portfolio of the state of Baja California and on the factor reported per technology in the 2018-2032 Mexican National Power System Development Program (PRODESEN). The resulting emission factor is 0.32229 metric tons/megawatt-hour (MWh) for CO<sub>2</sub>.

<sup>14</sup> Source: Project Sponsor.

Figure 1  
PROJECT LOCATION MAP



### 2.3. Project Sponsor and Legal Authority

The private-sector project sponsor is Novem Uno Corporativo S.A. de C.V., the medical facilities operator (Novem or the “Sponsor”), who created a special-purpose vehicle, Nueve Uno Integradora S.A de C.V., to implement the Project and contract the financing. Novem was established on October 14, 2014, in the city of Mexicali, Baja California, and has the legal authority to develop the Project. Its legal representative is Dr. Raúl Payán Ruiz.

Dr. Payán currently operates a medical clinic in San Luis Río Colorado (the “OSME Clinic”). Grupo OSME has been providing healthcare services in the community for 30 years. Services provided at the OSME Clinic include general and urgent care, imaging, and routine medical services. In addition to providing private healthcare services to the local population of San Luis Río Colorado, Grupo OSME also works with insurance companies specializing in offering insurance to agricultural workers and their families in the southwestern region of the United States. One of its main customers is Western Growers, an insurance company representing local and regional farmers growing fresh produce in Arizona, California, Colorado and New Mexico, and with whom Grupo OSME has been working for the last 26 years.<sup>15</sup> Pinnacle Claims Management, Inc. is another health insurance company with which Grupo OSME works. Pinnacle is a leading third-party administrator for employers who self-fund their healthcare benefits and has more than 20 years of experience in managing employee health benefits.

<sup>15</sup> Western Growers provides over half the fresh fruits, vegetables, and tree nuts in the U.S. (<https://www.wga.com/>).

### 3. CERTIFICATION CRITERIA

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#### 3.1. Technical Criteria

##### 3.1.1. General Community Profile

The Project is expected to benefit San Luis Río Colorado and nearby U.S. border communities, in particular U.S. agricultural workers located mainly in the Yuma County, Arizona and Imperial County, California, by providing healthcare services. These services will include preventive, emergency and hospital care, as well as diagnostics and surgery. The region will also benefit from the creation of employment opportunities and additional income generation during the construction and operation of the Project.

According to the 2020 Mexican census, the municipality of San Luis Río Colorado had a population of 199,021 residents, which represented 7% of the state population.<sup>16</sup> Its population grew at an average annual rate of 0.65% between 2015 and 2020.<sup>17</sup>

Based on the 2019 Economic Census, the economy of San Luis Río Colorado constitutes 2% of the state gross domestic product (GDP).<sup>18</sup> Manufacturing represents the largest sector, generating 37% of the municipality's GDP and employing 31% of its working population. Commerce represents the second largest sector, generating 35% of the municipality's GDP and employing 29% of its work force, and medical services represents 3% of its economy and contributes with 5% of total employment.

In San Luis Río Colorado, 64% of the companies have either been severely or moderately affected by the economic slowdown caused by the pandemic. The sectors most affected are tourism, professional services and commerce.<sup>19</sup>

##### **Health Services Profile**

Healthcare facilities in San Luis Río Colorado provide services to the local population and, in some cases, to residents from Yuma County, Arizona and Imperial County, California, mainly agricultural workers, as well as residents of other regions located in southern Arizona and southern California.

Healthcare infrastructure in the city of San Luis Río Colorado includes 12 hospitals and 10 clinics. Of the 12 hospitals, nine are operated by the private sector and three by the public sector. Only

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<sup>16</sup> Source: INEGI, *México en Cifras: Sonora* (26) [Mexico by the Numbers: Sonora (26)], <https://www.inegi.org.mx/app/areasgeograficas/?ag=26>.

<sup>17</sup> Source: INEGI, *Principales resultados de la Encuesta Intercensal 2015: Sonora* [Main Results of the 2015 Intercensal Survey: Sonora], [http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod\\_serv/contenidos/espanol/bvinegi/productos/nueva\\_estruc/inter\\_censal/estados2015/702825079901.pdf](http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/inter_censal/estados2015/702825079901.pdf).

<sup>18</sup> Source: INEGI, 2019 Economic Census, <https://www.inegi.org.mx/app/saic/default.html>.

<sup>19</sup> Source: Border research institute, Colegio de la Frontera Norte (COLEF), *COVID-19 en las Empresas de Sonora* [COVID-19 in Sonoran Businesses].



two of the hospitals provide specialty services. Six of the clinics are operated by the private sector and four are operated by the public sector.

The city of San Luis Río Colorado currently has 117 hospital beds.<sup>20</sup> Nevertheless, according to the Sponsor, approximately 70 additional beds are needed to meet the growing demand for medical services, which is outpacing the development of new healthcare infrastructure. The Sponsor believes there are several reasons for the increased demand, including the increase in life expectancy in Mexico, which has risen to an average of 75 years, as well as a greater number of dependents per person entitled to public sector medical services.<sup>21</sup>

### **Current COVID-19 Situation**

Since the outbreak in March 2020, the virus has been spreading exponentially to all nations and to all Mexican states. According to the Mexican Ministry of Health (SSA), as of June 2, 2021, Mexico had reported 2,423,928 COVID-19 cases with a total death toll of 228,146. The state of Sonora recorded 75,487 total infections and 6,732 deaths for the same period.<sup>22</sup>

As the fourth largest municipality in the state, San Luis Río Colorado is one of the municipalities most affected by the COVID-19 pandemic in Sonora. As of June 2, 2021, the Municipality reported 3,374 cases and 526 deaths.<sup>23</sup> Due to the relatively modest healthcare infrastructure in the city and the influx of COVID-19 cases, the local healthcare system cannot cope with the demand for services. On January 16, 2021, the State Health Secretary reported that private and public hospitals in the state were saturated due to increased demand caused by the COVID-19 pandemic.<sup>24</sup> The Project will help increase medical infrastructure capacity to assist with the care of patients with the coronavirus, as well as other illnesses.

### **OSME Clinic**

Between April and December 2020, the OSME clinic provided medical services to 3,400 patients with COVID-19 symptoms. Of those patients, approximately 1,260 required imaging of their respiratory tract due to lesions caused by the virus. More than 100 patients were gravely ill with the virus and had to be transferred to hospitals for advanced care.

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<sup>20</sup> Source: Information provided by the Sponsor, *Market Analysis for the Feasibility of the OSME Hospital* prepared by Génesis Consultoría (2016).

<sup>21</sup> Source: Ibid.

<sup>22</sup> Source: Mexican Health Ministry (SSA), daily COVID 19 technical release, Coronavirus COVID 19 Comunicado Técnico Diario | Secretaría de Salud | Gobierno | gov.mx (www.gob.mx).

<sup>23</sup> Source: INEGI, <https://gaia.inegi.org.mx/covid19/>.

<sup>24</sup> Source: Local newspaper, *Tribuna de San Luis*, <https://www.tribunadesanluis.com.mx/local/slrc-reporta-16-casos-positivos-de-covid-19-san-luis-rio-colorado-6251592.html>

To provide medical care safely during the COVID-19 pandemic, the OSME Clinic implemented a protocol to detect and prevent the spread of the virus within its facility in accordance with the hospital reconversion criteria established by the Mexican federal government.<sup>25</sup> All visitors entering the clinic have their temperature taken by OSME medical staff, and the use of masks and antibacterial sanitizers is required. People with apparent symptoms of COVID-19 are taken to a special area within the clinic for a primary medical exam. Based on that medical exam, the OSME Clinic provides treatment on site or refers patients to a more advanced medical facility. All OSME Clinic personnel attending COVID-19 patients are provided with personal protective equipment (PPE), and all areas within the OSME Clinic where COVID-19 patients are treated are constantly disinfected to prevent the spread of the disease.

### 3.1.2. Project Scope

The Project consists of the design, construction and operation of private medical facilities that include a hospital and a medical specialties center. The main components of the Project are:

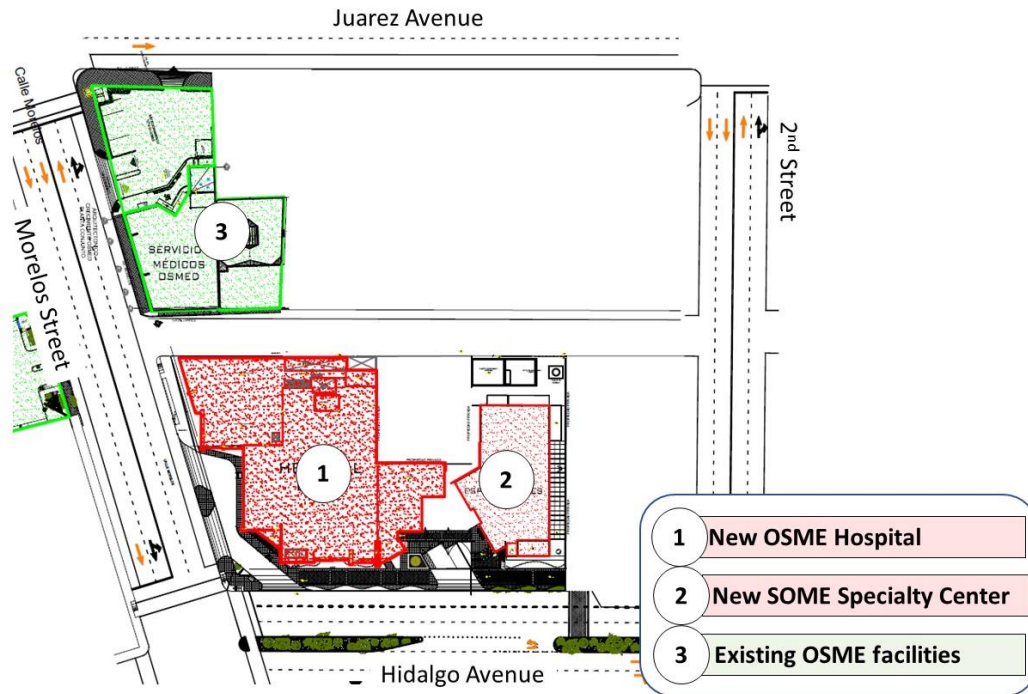
- *Hospital.* Construction of a five-story building with approximately 6,000 m<sup>2</sup> (64,800 ft<sup>2</sup>) of medical space that will include 67 licensed beds, an emergency room, operating rooms, maternal child health services area, intensive care unit, radiology and laboratory services, neonatal intensive care area, pharmacy, kitchen, dining room and mortuary.
- *Medical Specialties Center.* Construction of a three-story building with a total service area of approximately 1,600 m<sup>2</sup> (17,150 ft<sup>2</sup>), which will include consulting rooms and a pharmacy.

Figure 2 shows the location of the main components within the project area.

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<sup>25</sup> Source: Government of Mexico, *Lineamiento de reconversión hospitalaria* [Hospital Restructuring Guidelines], April 2020, <https://coronavirus.gob.mx/wp-content/uploads/2020/04/Documentos-Lineamientos-Reconversion-Hospitalaria.pdf>. The guidelines were established to ensure that healthcare services are provided under the principles of timely access, quality care and efficiency in the use of human, material and financial resources for the benefit of the population, and thus help prevent and control the pandemic caused by the SARS-CoV2 virus in Mexico.

**Figure 2**  
**PROJECT LAYOUT**



The Project also includes the acquisition and installation of medical equipment in accordance with the requirements of the manufacturer, including:

- Computer tomography (CT) scanner. This device creates detailed images of internal organs, bones, soft tissue and blood vessels.
- Magnetic resonance imaging. This equipment generates detailed, three-dimensional anatomical images.
- Angiography system. This device provides high-definition images for radiology, cardiology, and surgery procedures.
- X-ray equipment. To be used for radiography.
- C-arm imaging unit. To be used for radiography during surgical, orthopedic and emergency care procedures.

The Project will have the capacity to provide 33,800 primary care physical exams a year. The market for these services consists of patients with U.S. health insurance from one of the insurers for whom the sponsor is a provider, patients with U.S. employers who pay the sponsor directly for care, patients who self-pay, and patients with private insurance who live in Mexico, some of whom have insurance from a U.S. employer because they work in the U.S., and others with Mexican health insurance.

As with the existing OSME Clinic, both the Hospital and the Medical Specialties Center will provide medical services to COVID-19 patients. To provide these services in a secure environment, the following measures will be implemented at the new facilities:

- COVID-19 Committee. A COVID-19 Committee comprised of management, physicians and support staff will perform a self-assessment to evaluate the operational conditions of the following infrastructure: electric installations, water pipes and fixtures, medical gas installations and HVAC systems.
- Access to facilities. There will be a designated area at the entrance of each building for alcohol-based sanitizer. Patients showing COVID-19 symptoms will be isolated. A special area will be designated for the identification and prioritization of patients with respiratory symptoms. Personnel staffing this area will be properly protected with the necessary devices and equipment.
- Contagion prevention measures. Medical personnel will be supplied with personal protection equipment (PPE) in accordance with established infection prevention guidelines. Consulting rooms will be cleaned regularly to sanitize equipment and areas touched by patients.

### 3.1.3. Technical Feasibility

The Project will be designed in compliance with current Mexican medical facility regulations, such as the NOM-197-SS1-2000, NOM-030-SSA3-2013 and NOM-229-SSA1-2002.<sup>26</sup> The design will take into consideration all the medical services to be provided, while prioritizing the optimum use of the space. It will also consider local and regional needs (epidemiological, morbidity and mortality), as well as local environmental conditions (building and window orientation, indoor and outdoor lighting, room ventilation) and natural factors (earthquakes, winds, extreme temperatures).

The exterior walls and roof of the buildings will include thermal insulation to reduce energy consumption. Both the exterior walls and the roof will have up to five layers of material designed to stabilize the structure, while also improving its thermal performance. Dual-paned windows will be installed with a low-emissivity coating. This coating reduces heat gain or loss by reflecting long-wave infrared energy (heat) and thus decreases the solar heat gain, thereby improving the energy efficiency of the building. Louvers will also be installed in all windows to admit light while reducing direct sunlight into the building.

An efficient heating, ventilation and air conditioning (HVAC) system will be installed. To minimize energy consumption, the HVAC system will be equipped with smart controls that automatically shut off unnecessary compressors and cycle the condenser fans for maximum energy efficiency. The HVAC system is expected to be 23% more efficient than a typical cooling system, which will result in less electricity consumption during the operational phase of the Project.

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<sup>26</sup> NOM-197-SS1-2000 establishes the minimum requirements for infrastructure and equipment for hospitals and specialized medical care facilities. NOM-030-SSA3-2013 establishes the architectural characteristics to facilitate access and use of medical facilities by people with disabilities. NOM-229-SSA1-2002 establishes the technical requirements and specifications for the use of equipment and radiation protection in X-ray medical diagnostic establishments.

In addition, water consumption will be minimized by installing low-flow bathroom fixtures. Table 1 indicates the expected water consumption per bathroom fixture.

**Table 1**  
**WATER FIXTURE CONSUMPTION**

Fixture	Consumption
Sink	2.2 gallons per minute
Toilet	1.3 gallons per flush
Urinal	0.5 gallons per flush
Shower head	1.8 gallons per minute

The Sponsor has selected the company Ventho as the engineering, procurement, and construction contractor (EPC), who will be responsible for the design and construction of the Project. Ventho has proven experience in implementing this type of project. In May 2019 it completed the construction of the OSME Clinic, a two-story facility with a total constructed area of 1,024 m<sup>2</sup> (11,000 ft<sup>2</sup>). Ventho will use the same construction process for this Project that it used for the OSME Clinic.

The medical equipment is currently in the procurement process and will be provided by top-tier medical industry manufacturers. The companies under consideration are either U.S. or European-based. The selected equipment manufacturer will verify that all the necessary conditions for equipment installation have been met and that all applicable licenses are obtained to proceed with the installation and tests to guarantee the correct operation of the equipment. Ventho will coordinate the installation of the medical equipment with the selected provider.

Since this is the first healthcare project to be considered for NADB financing, the Bank engaged the services of a third-party consultant with experience in implementing this type of project in emerging markets. This consultant has assisted the NADB in its technical due diligence review, allowing the Bank to make an informed decision based on the opportunities and risks of providing financing for the Project.

#### **3.1.4. Land Acquisition and Right-of-Way Requirements**

No right-of-way permits are required since all infrastructure related to the construction and operation of the Project will be located on private property secured by the Sponsor. The Project site consists of approximately 3,000 m<sup>2</sup> (32,300 ft<sup>2</sup>) of private land of which 2,100 m<sup>2</sup> (22,600 ft<sup>2</sup>) will be used for the hospital and 900 m<sup>2</sup> (9,700 ft<sup>2</sup>) for the medical specialties center.

#### **3.1.5. Project Milestones**

The financial closing is expected by the third quarter of 2021. Construction of the Project is scheduled to begin in the third quarter of 2021 and is expected to be completed by the fourth quarter of 2022. The Project requires local, state, and federal clearances to carry out construction and operation activities.

Table 2 presents the status of key milestones for Project implementation.

**Table 2**  
**PROJECT MILESTONES**

Key Milestones	Status
Municipal environmental permit	Completed (November 2020)
Municipal land use permit	Completed (December 2020)
Feasibility of water and wastewater services	Completed (December 2016)
Municipal construction permit	Expected third quarter of 2021
Municipal operating permit	Expected fourth quarter of 2022
State comprehensive environmental permit	Expected July 2021
State registration as special waste generator	Completed (June 2021)
Federal sanitary construction permit from COFEPRIS	Completed (March 2021)
Federal registration as hazardous waste generator with SEMARNAT	Completed (April 2021)
Construction completion	Expected fourth quarter of 2022

Federal Commission for Protection against Health Risks (COFEPRIS); Mexican Ministry of Environment and Natural Resources (SEMARNAT).

NADB procurement policies require that private-sector borrowers use appropriate procurement methods to ensure a sound selection of goods, works and services at fair market prices and that their capital investments are made in a cost-effective manner. As part of its due-diligence process, NADB will review compliance with this policy.

### 3.1.6. Management and Operation

The Sponsor has more than 30 years of experience in providing medical services to the general population in San Luis Río Colorado, as well as to insured agricultural workers. Currently the Sponsor provides an average of 27,000 primary care physical exams a year at its existing OSME Clinic. When necessary, the Sponsor coordinates medical services with local hospitals, including consultations with medical specialists, surgeries, specialized treatments, laboratory studies and emergency services. Project implementation will allow the Sponsor to offer the foregoing services within its own facilities, improving the quality of the healthcare services provided and reducing the consultation time for patients.

As with the existing OSME Clinic, the Sponsor will be responsible for operating the hospital and medical center, but will contract Ventho to provide building maintenance for both facilities. Ventho has a proven record of providing maintenance to the existing OSME Clinic. It developed a comprehensive facility operation & maintenance (O&M) manual tailored to the OSME Clinic, which will be used as the basis for developing the manuals for the hospital and medical center. The O&M manuals will include a preventive maintenance program, a list of providers to be contracted for both preventive and corrective maintenance, a maintenance budget and keeping a logbook of all maintenance performed, as well as cover the prompt response for any corrective maintenance required.

Implementation of the maintenance program will allow the Sponsor to keep the facilities operating in accordance with Mexican regulation.

With respect to the medical equipment, the manufacturer will train the medical technicians in its operation once it has been installed and will be responsible for providing equipment maintenance. This approach will ensure that all requirements for the operation and maintenance of the medical equipment are met.

## **3.2. Environmental Criteria**

### **3.2.1. Environmental and Health Effects/Impacts**

#### **A. Existing Conditions**

The city of San Luis Río Colorado currently has 12 hospitals and 10 clinics with a total of 117 hospital beds,<sup>27</sup> which translates into 7.97 hospital beds per 10,000 inhabitants.<sup>28</sup> This figure is lower than the national ratios for Mexico (9.8) and the United States (28.7).<sup>29</sup> The demand for medical services has been growing at an estimated rate of 5% annually and is expected to reach as much as 7% for some critical illnesses, such as diabetes, hypertension, cancer and childbirth. This demand has been exacerbated by the influx of patients with COVID-19, as local healthcare facilities have recently been operating at capacity, further spotlighting the need to expand medical care services in the region. Since public investment in medical infrastructure in the city is expected to be limited, private investment in the healthcare sector is needed to reduce the gap between supply and demand.

The water supply for the city of San Luis Río Colorado is the shallow Mesa Arenosa Aquifer. Located in the Sonoran Desert, the municipality has an extremely arid climate with very little annual precipitation, and thus is highly vulnerable to droughts.<sup>30</sup> Consequently, water conservation in the region is critical to ensure adequate access to this vital resource for the local population.

San Luis Río Colorado does not have a local source of power generation and obtains electricity from the state of Baja California. Fossil fuel-based energy generation can adversely affect the natural environment due to harmful emissions related to the generation process, including carbon dioxide (CO<sub>2</sub>) and other pollutants, such as sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).

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<sup>27</sup> Source: Number of current hospital beds provided by the Sponsor, *Market Analysis for the Feasibility of the OSME Hospital* prepared by Génesis Consultoría (2016).

<sup>28</sup> Source: INEGI, <https://gaia.inegi.org.mx/covid19/>.

<sup>29</sup> Source: World Health Organization, [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hospital-beds-\(per-10-000-population\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hospital-beds-(per-10-000-population)).

<sup>30</sup> Source: Mexican National Water Commission (CONAGUA), 2020-2024 National Water Program.

## B. Project Impacts

Project implementation will increase access to affordable and sustainable medical services, benefitting the local population, as well as residents from southern Arizona and southern California in the United States. It will also help reduce the spread of COVID-19 in San Luis Río Colorado and neighboring U.S. counties by supporting the diagnosis and care of COVID-19 patients.

The Project will help meet the growing demand for healthcare services by providing 67 additional hospital beds, increasing the number of beds in San Luis Río Colorado from 117 to 184.<sup>31</sup> The new hospital will become the fourth in the state of Sonora with more than 50 beds.<sup>32</sup>

Once both facilities are operational and reach full capacity, up to 33,800 primary care physical exams are expected to be performed annually. The Project will also provide first-time access to critical medical services in San Luis Río Colorado, including:

- Intensive care unit;
- Neonatal intensive care unit;
- Cardiac surgery;
- Cardiac catheterization;
- Cerebral catheterization;
- Vascular surgery;
- Private blood bank;
- CT scanning; and
- Trauma emergency room.

From an environmental standpoint, the Project is designed to incorporate sustainable construction techniques and thermally efficient building materials to reduce water usage and energy consumption. Both the hospital and the medical specialties center will be equipped with low-flow water fixtures, which are expected to reduce water consumption by 43% compared to a typical healthcare facility.<sup>33</sup> Water savings are estimated at 15,815 m<sup>3</sup> (4.2 million gallons) a year, which is similar to the annual consumption of 60 households.<sup>34</sup>

Likewise, the new facilities are expected to use 18% less electricity than the baseline building in Mexican regulations.<sup>35</sup> This reduction is mainly related to the electricity needed to keep the indoor ambient air at a comfortable temperature. The energy savings are estimated to be 257 MWh/year, similar to the annual consumption of 34 households.<sup>36</sup> This reduction in electricity consumption is

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<sup>31</sup> Source: Number of current hospital beds provided by the Sponsor, *Market Analysis for the Feasibility of the OSME Hospital* prepared by Génesis Consultoría (2016).

<sup>32</sup> Source: Sponsor.

<sup>33</sup> According to the data provided by the Sponsor, when compared to the water consumption of a hospital using typical water fixtures.

<sup>34</sup> Assumes a daily consumption of 217 liters per day per person based on the IMTA Water Utility Management Indicators Program (PIGOO) and 3.33 persons per household according to INEGI.

<sup>35</sup> Energy savings were calculated by the Sponsor based on Mexican Official Standard NOM-008-SENER-2001.

<sup>36</sup> The number of households is estimated based on an annual consumption of 2,257 kWh per person according to SENER and 3.3 persons per household according to INEGI.



equivalent to the displacement of the following 83 metric tons/year of CO<sub>2</sub> emissions, as well as of other criteria pollutants (nitrogen oxides, sulfur dioxide and particulate matter).<sup>37</sup>

Finally, the Project is expected to create 275 direct jobs during construction and more than 140 direct jobs once the hospital and the medical center are operating at full capacity.<sup>38</sup>

### C. Transboundary Impacts

No negative transboundary impacts are anticipated as a result of the Project. On the contrary, the Project is expected to have a positive impact by providing access to specialized medical services to residents on both sides of the U.S./Mexico border, especially agricultural workers that cross the border daily into the U.S. from Mexico.

Furthermore, by increasing health services in the region, the Project will help reduce the spread of COVID-19, not only in San Luis Río Colorado, but also in Imperial County, California and Yuma County, Arizona.

## 3.2.2. Compliance with Applicable Environmental Laws and Regulations

### A. Environmental Clearance

Project implementation requires environmental clearance from local, state and federal governments. At the local level, under the provisions of the Sonora State Law of Ecological Balance and Environmental Protection (LEEPAES),<sup>39</sup> San Luis Río Colorado is authorized to issue the corresponding environmental clearance through a Municipal Environmental Permit. The Project Sponsor prepared and submitted an Environmental Impact Assessment (MIA) report, which indicated that the Project will be developed in a previously impacted site within the city and therefore no significant adverse environmental impacts were detected by the Project's construction and operation activities. The Municipality through its Urban Development and Ecology Department issued an Environmental Clearance No. 0961/DUE/2020 on November 19, 2020. In addition, on December 1, 2020 the Municipality issued a Land Use Permit authorizing the construction and operation of the Project.

At the state level, the Sponsor has requested a Comprehensive Environmental Permit from the Sonora State Ecology and Sustainable Development Commission (CEDES), as well as the authorization to be registered as a Special Waste Generator. For that purpose, the Sponsor identified, described and evaluated potential environmental impacts associated with the construction and operational phases of the Project, as well as proposed mitigation measures to

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<sup>37</sup> The CO<sub>2</sub> calculation is based on the potential emissions avoided as a result of reducing future demand on fossil fuel-based electricity equivalent to 257 MWh/year through the use of efficient construction materials and equipment and the emission factor for the state of Baja California, since San Luis Río Colorado is connected to the Baja California power grid. The emission factor was calculated by NADB based on the power generation portfolio of the state of Baja California and on the factor reported per technology in the 2018-2032 Mexican National Power System Development Program (PRODESEN). The resulting emission factor is 0.32229 metric tons/megawatt-hour (MWh) for CO<sub>2</sub>.

<sup>38</sup> Source: Project Sponsor.

<sup>39</sup> *Ley del Equilibrio Ecológico y Protección al Ambiente del Estado de Sonora (LEEPAES)*.

prevent or minimize any negative impacts. The commission registered the Project as a Special Waste Generator in June 2021 and is expected to grant the Comprehensive Environmental Permit in July 2021.

Pursuant to the Sonora state environmental law, any facility that obtains a Comprehensive Environmental Permit must provide an annual operating report to CEDES. This report will include information regarding any mitigating measures implemented to protect the environment, as well as information regarding the discharge and/or disposal of any pollutants. The Sponsor will comply with this requirement once the Project enters its operational phase.

Finally, at the federal level, in accordance with the General Law of Environmental Equilibrium and Environmental Protection (LGEEPA) and the General Law for Comprehensive Waste Management and Prevention (LGPGIR), the medical waste generated during the operational phase of the Project is classified as hazardous.<sup>40</sup> Therefore, the Project was registered with SEMARNAT as a hazardous waste generator on April 29, 2021.

## **B. Mitigation Measures**

The proposed mitigation measures for the Project are included in the MIA report and are aimed at addressing temporary and minor adverse impacts during the construction and operation of the Project. These measures include:

- Solid waste generated during the construction phase will be separated and classified as municipal waste or waste requiring special handling. Such waste will be disposed of at the local landfill.
- Hazardous waste will be identified and classified in accordance with Official Mexican Standard NOM-052-SEMARNAT-2005.
- Hazardous waste will be handled and incinerated by an authorized service provider in accordance with Official Mexican Standard NOM-087-SEMARNAT-SSA1-2002.
- Other hospital waste (radiological, etc.) will be handled and disposed of in compliance with the applicable Mexican standards.
- Wastewater will be discharged into the city's wastewater collection system. Such wastewater will comply with Official Mexican Standard NOM-002-SEMARNAT-1996, which establishes the maximum permissible levels of contaminants in wastewater.

The Sponsor will contract the services of a waste collection provider licensed to handle and dispose of the hazardous waste generated by the Project.

By complying with the aforementioned standards and following sound management practices, the potential environmental impacts associated with the Project can be minimized. In addition, the Sponsor will be responsible for ongoing coordination with the local authorities and must comply

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<sup>40</sup> *Ley General del Equilibrio Ecológico y Protección al Ambiente (LGEEPA)* and *Ley General para la Prevención y Gestión Integral de los Residuos (LGPGIR)*.

with any requirements, authorization procedures or recommendations that may be issued throughout the life of the Project.

### **C. Pending Environmental Tasks and Authorizations**

The Sponsor has requested a Comprehensive Environmental Permit from the State's Ecology and Sustainable Development Commission. The Commission is expected to issue the permit in July 2021.

### **3.3. Financial Criteria**

The Project Sponsor has requested a loan from NADB to complete the financing of the Project. The proposed payment mechanism is consistent with project finance structures seen in the U.S. and Mexico where one company owns the assets and contracts another company to operate them. The source of payment will be the revenue generated by Grupo OSME's four brands: i) the primary care services provided by OSME Clinic; ii) its pharmacy OSME Farmacia, iii) the specialized services provided by the OSME Medical Specialties Center, such as medical imaging and diagnostics; and iv) the OSME Hospital.

A preliminary analysis conducted by NADB verified that the Borrower has the legal authority to contract the financing and pledge its revenue and project assets for the payment of the financial obligations associated with the loan. It also has the legal and financial capacity to operate and maintain the Project given the experience of the OSME management team, the proposed Project structure and projected revenue streams. During the due-diligence process, NADB will perform a detailed review of the technical, financial, and legal aspects of the Project, as well as verify that the projected operation and maintenance (O&M) costs are sustainable.

The revenue derived from the entire Grupo OSME is estimated to be sufficient to: a) cover operation and maintenance expenses, b) pay the debt service, c) fund the debt service reserve and d) comply with debt service coverage requirements.

Considering the Project's characteristics and based on the preliminary financial and risk analyses performed, the proposed Project is financially feasible and presents an acceptable level of risk. Therefore, NADB has begun processing the loan request for up to \$360 million pesos (US\$18 million), which would be contracted by the special-purpose company created for the construction of the Project.

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## **4. PUBLIC ACCESS TO INFORMATION**

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### **4.1. Public Consultation**

NADB published the draft certification and financing proposal for a 30-day public comment period beginning on June 4, 2021.

## **4.2. Outreach Activities**

NADB conducted a media search to identify potential public opinion about the Project. No specific articles or references to the Project were found. No public opposition to the Project has been identified.