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OPPORTUNITIES FOR US SUPPLIERS
OF UTILITY-SCALE WIND AND SOLAR POWER AND SMART GRID PRODUCTS AND SERVICES IN LATIN AMERICA

Latin America attracted over $130 billion in renewable energy investments between 2007 and 2016. The macroeconomic outlook is favorable in most Latin American countries, and many governments in the region have set ambitious targets for increasing renewable energy use. For example, Brazil announced plans to increase clean energy capacity by 19 gigawatts (GW) by 2026. Brazil, Chile, Colombia, and Uruguay have announced substantial smart grid investment plans (Northeast Group2018). U.S. companies have a comparative advantage in Latin America because of their geographic proximity and reputation for high-quality goods and services (ITA 2016).

POLICY AND REGULATORY ENVIRONMENT

Figure 1. Wind Power Auctions in Latin America

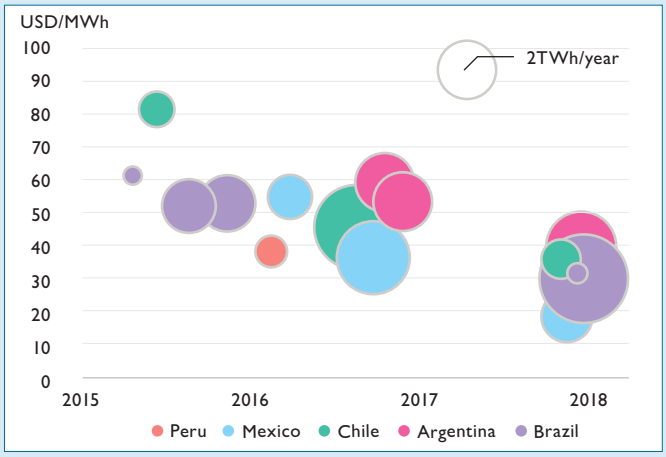
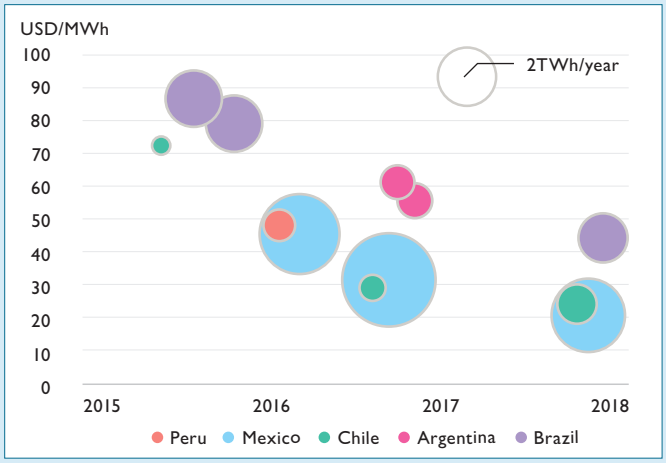


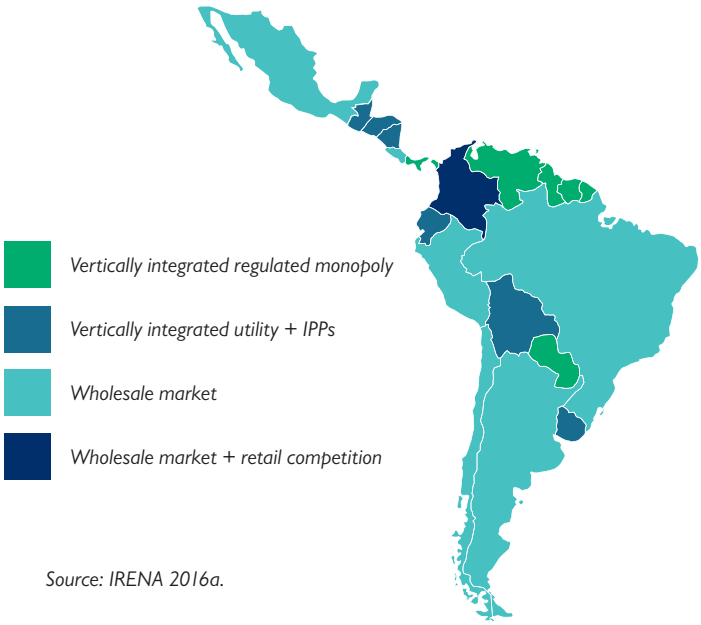
Figure 2. Solar Power Auctions in Latin America



Source: BNEF 2018a.

Many countries in Latin America have been early adopters of public auctions and power purchase agreements (PPAs) to encourage private investment in renewable electric power generation and the transmission and distribution grid (**Figures 1 and 2**). In late 2017, Brazil awarded contracts for $8.2 billion of energy investments over the next six years, including 4.5 GW of power generation and 3,100 miles of power lines. Many countries have established competitive wholesale power markets (**Figure 3**).

Figure 3. Electricity Market Structures in Latin America



Source: IRENA 2016a.

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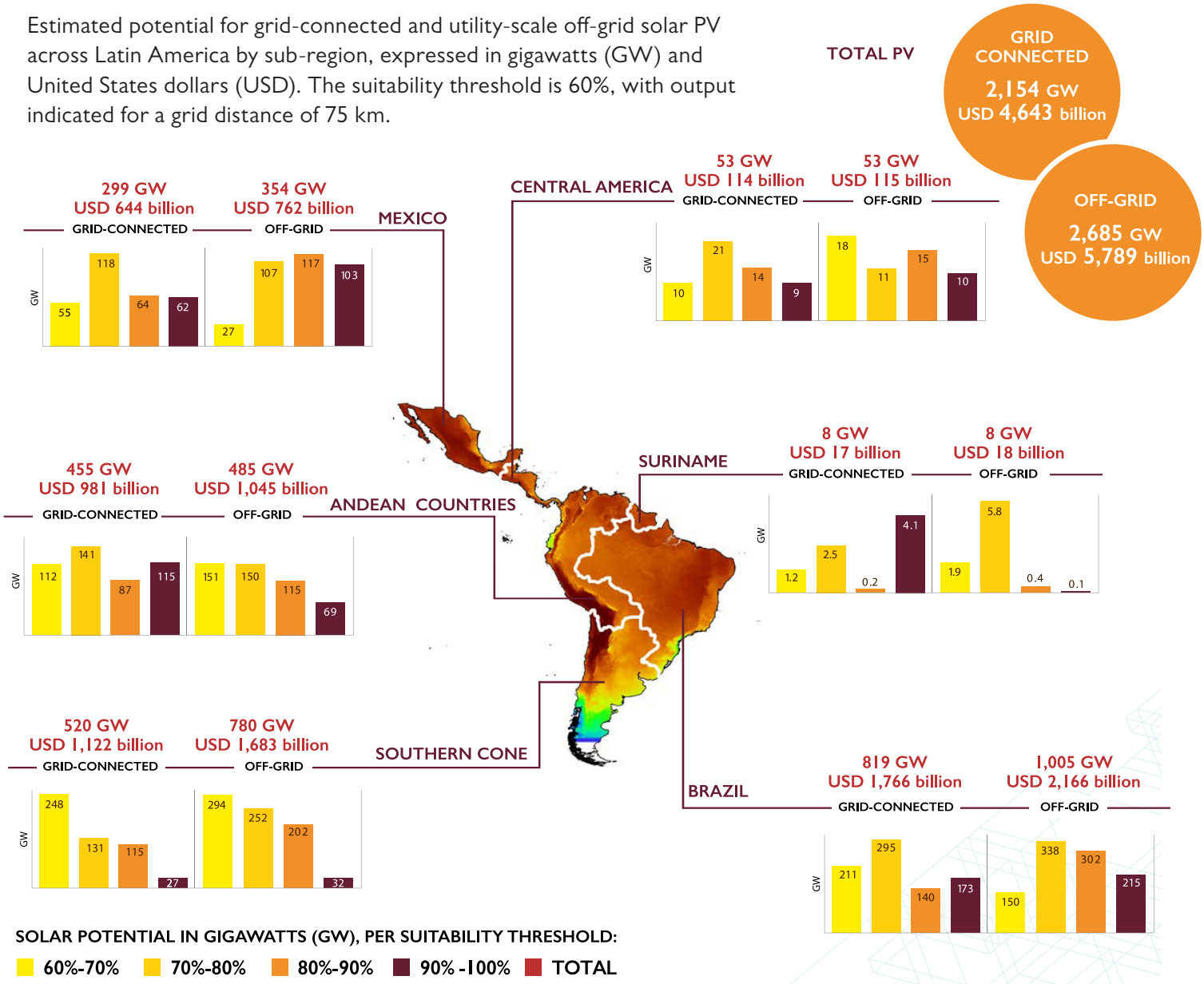
PHOTOVOLTAIC POWER

Latin America has the technical potential for 4,839 GW of photovoltaic (PV) power, on and off grid **(Figure 4)**.

Figure 4. Technical Potential for Photovoltaics in Latin America

Estimated potential for grid-connected and utility-scale off-grid solar PV across Latin America by sub-region, expressed in gigawatts (GW) and United States dollars (USD). The suitability threshold is 60%, with output indicated for a grid distance of 75 km.



Source: IRENA 2016b.

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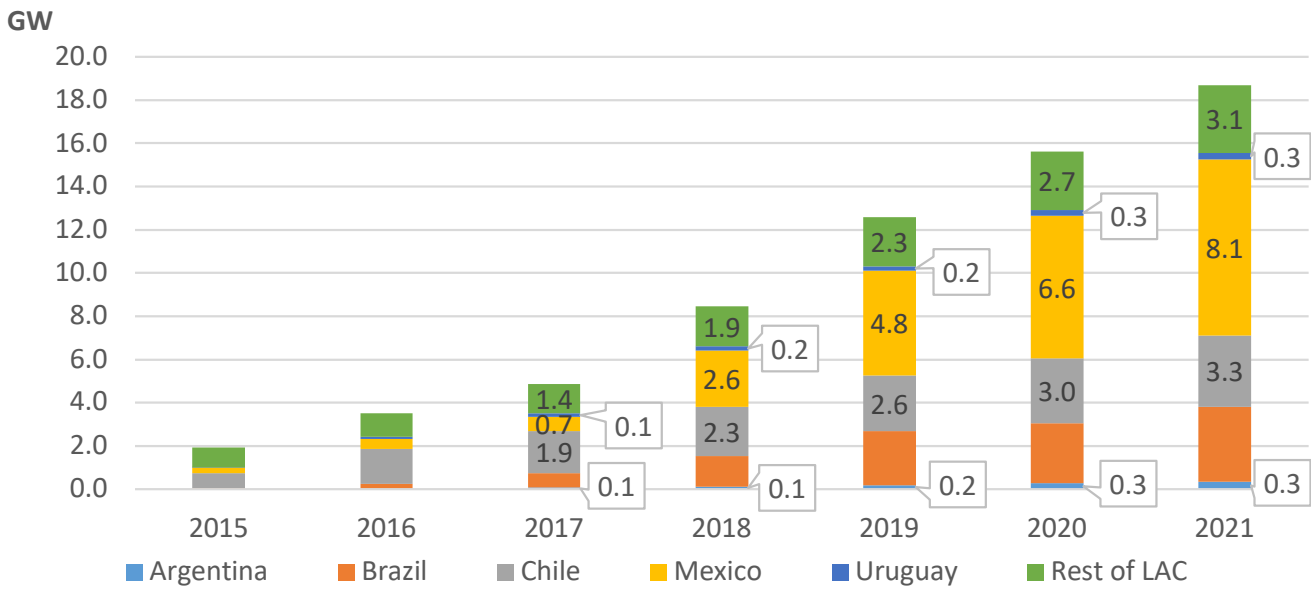
The International Energy Agency (IEA) estimated that the installed capacity of PV will grow from about 2 GW in 2015 to more than 18 GW in 2021 (**Figure 5**). Mexico, Brazil, and Chile were expected to have the largest share of this installed capacity.

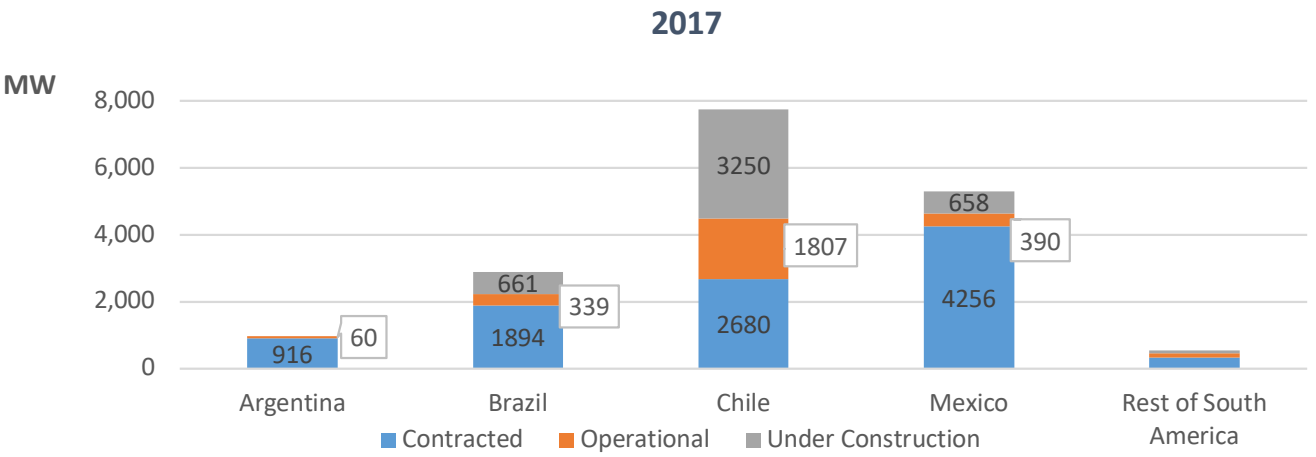
Figure 5. Installed Capacity of Photovoltaics in Latin America, 2015–2021



Source: Based on data from IEA 2016.

In March 2017, the largest markets in the Latin America region had 2,725 megawatts (MW) of PV capacity in operation and over 4,500 MW was under construction (**Figure 6**).

Figure 6. Photovoltaic Power Capacity in Latin America, Operating or Under Construction in 2017



Source: Based on data from Sushma 2017.

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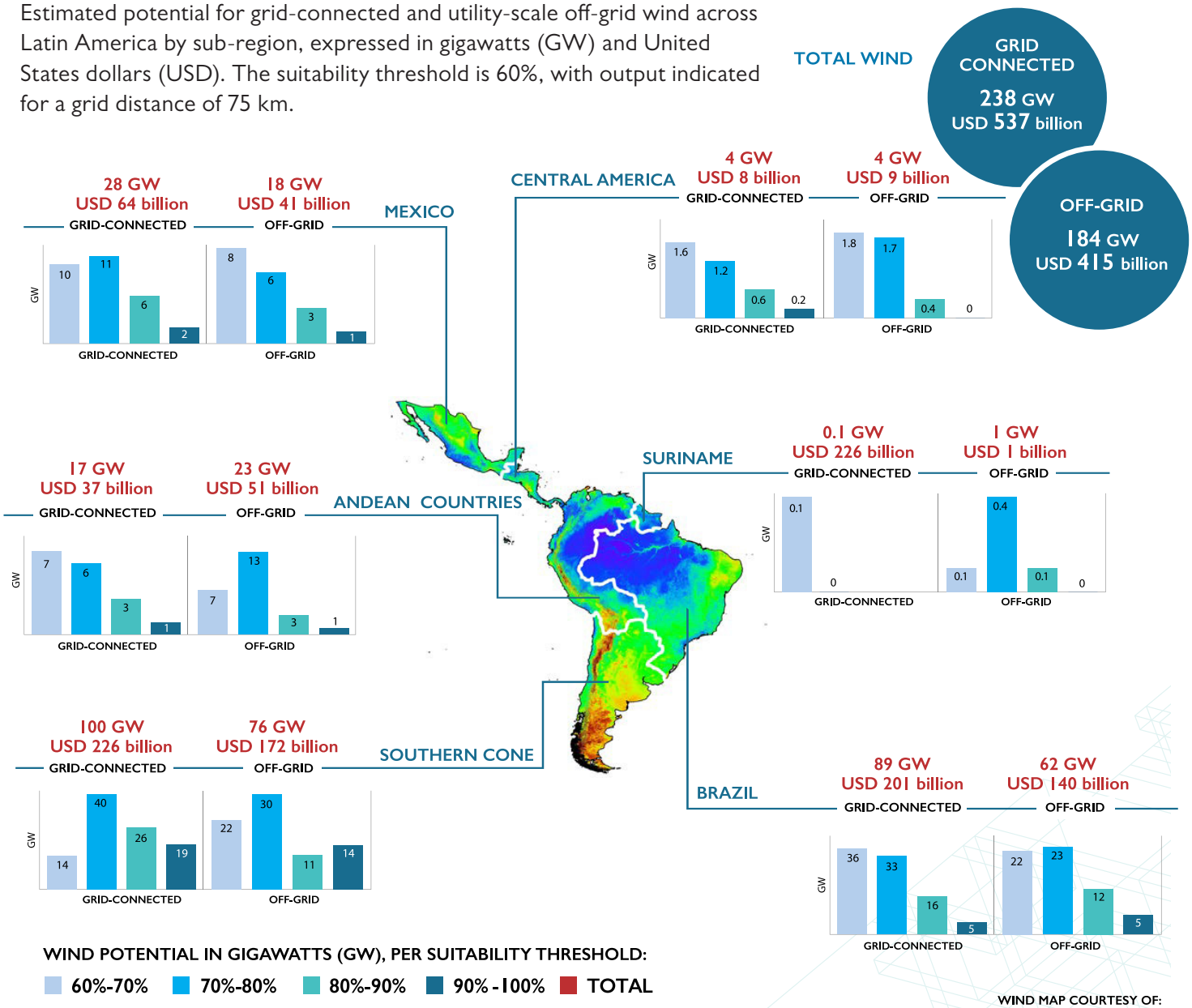
WIND POWER

Latin America has the technical capacity for 422 GW of wind power, on and off the grid (**Figure 7**).

Figure 7. Technical Potential for Wind Power in Latin America

Estimated potential for grid-connected and utility-scale off-grid wind across Latin America by sub-region, expressed in gigawatts (GW) and United States dollars (USD). The suitability threshold is 60%, with output indicated for a grid distance of 75 km.



Source: IRENA 2016b.

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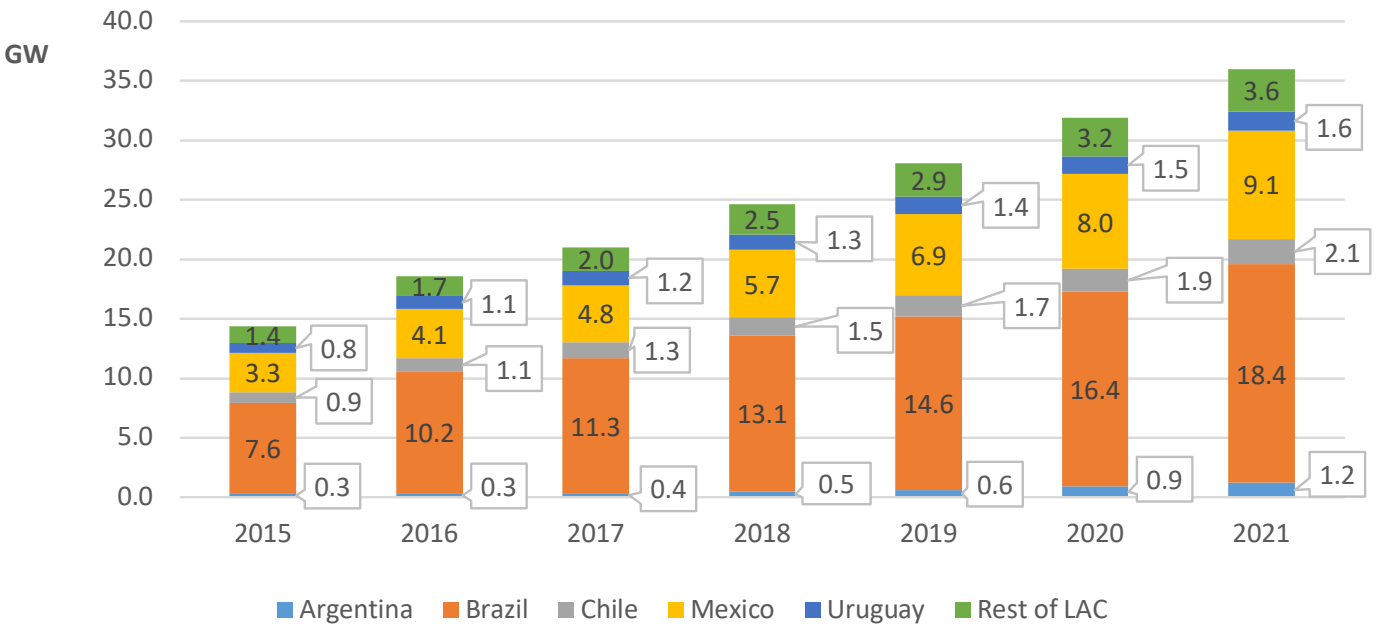
The IEA estimated that the installed capacity for on-shore wind electricity would more than double from 14.4 GW in 2015 to 36 GW in 2021 (**Figure 8**). Brazil, Mexico, and Chile are expected to have the largest shares of the on-shore wind power capacity.

Figure 8. Projected Installed Capacity of Wind Power in Latin America, 2015-2021



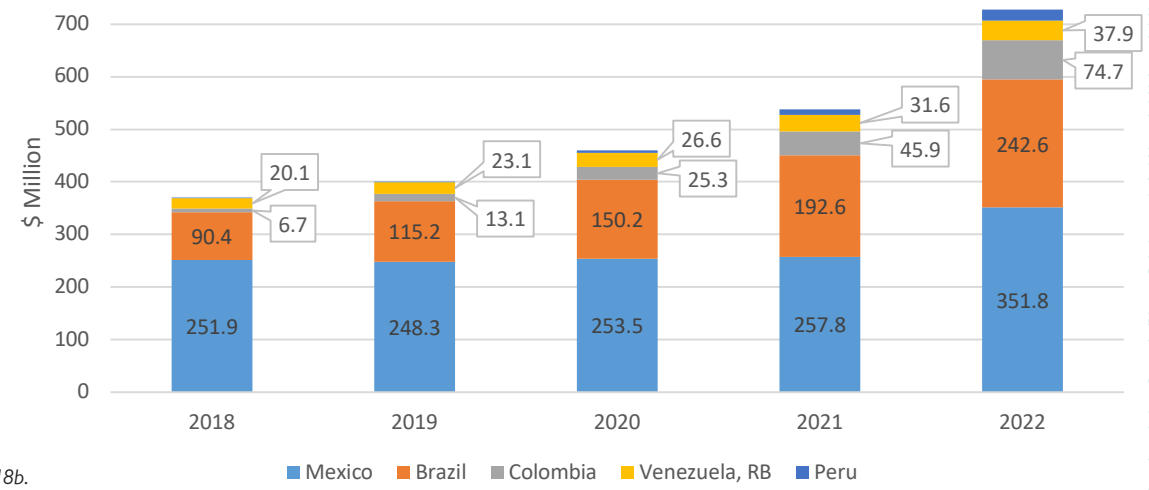
Source: Based on IEA 2016.

SMART GRIDS

New smart grid investments in Latin America are expected to increase steadily through 2030. Argentina, Brazil, Chile, Colombia, Ecuador, and Mexico have targets for smart meter implementation. Uruguay has announced investment plans for smart grids. In 2018, Mexico will be a primary market for exporters of transmission and distribution end products. Chile and Colombia also offer significant opportunities to U.S. exporters of smart grid technologies and are perceived as high reward, low risk markets, based on projected electricity capacity and generation growth in the near-term, coupled with stable economic and political environments (ITA 2017).

Annual investments in smart electricity metering in Latin America's top five markets will nearly double from $370 million in 2018 to $728 million in 2022. Most of these investments will occur in Mexico and Brazil (**Figure 9**).

Figure 9. Investments in Smart Electricity Metering in Top Latin American Countries, 2018-2022



Source: BNEF 2018b.

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