

The background of the slide is a photograph of two wind turbines silhouetted against a bright, low sun. The sky is a deep orange and yellow, and the sun is a large, bright white circle. The turbines are dark silhouettes against the bright sky.

# **Renewable Energy Funding**

May 2018



# Banco do Nordeste do Brasil (BNB)

## The Northeast Bank of Brasil

- Multiple financial institution. An open capital government-controlled company with 65 years of experience
- The largest regional development bank in Latin America
- It manages the Northeast Constitutional Financing Fund, known by the initials “FNE”
- It runs the largest South American program on oriented productive microcredit
- The first public bank to create an innovation hub



# Who we are

292 agencies, 6.925 employees e 3,98 million customers

## Regional market-share dominance<sup>1</sup>

62,6% of long-term credits

64,7% of rural credits

7,8% of all bank agencies in the region

## Profits

Operating income: US\$ 344.6 million

Net income: US\$ 213.5 million

Return on average equity: 19.8%

## Bank applications

R\$ 8.27 billion

## Assets

BNB US\$ 16.9 billion

FNE US\$ 23.3 billion

## Field of Work

11 States  
1990 municipalities

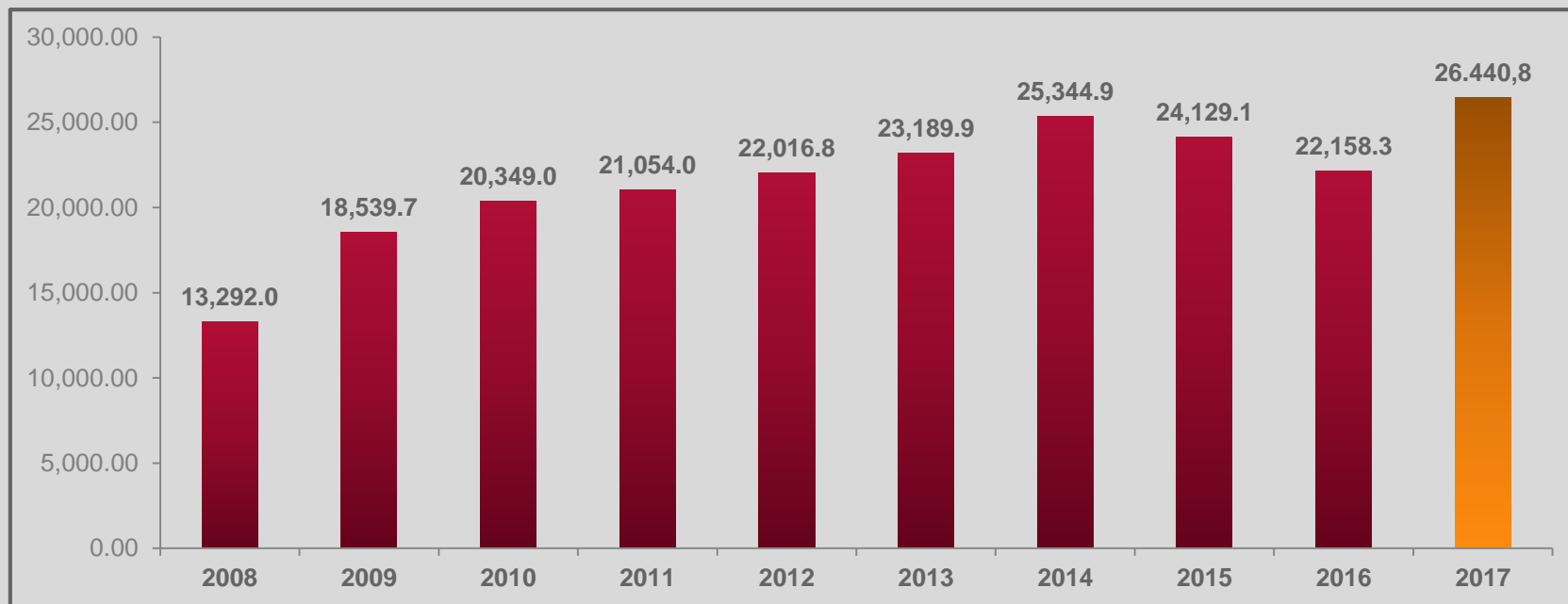


<sup>1</sup> Sisbacen – Central Bank/Marketing Department-BNB (Oct/2017)

# BNB credit applications

4.879.524 credit agreements in 2017

US\$ million





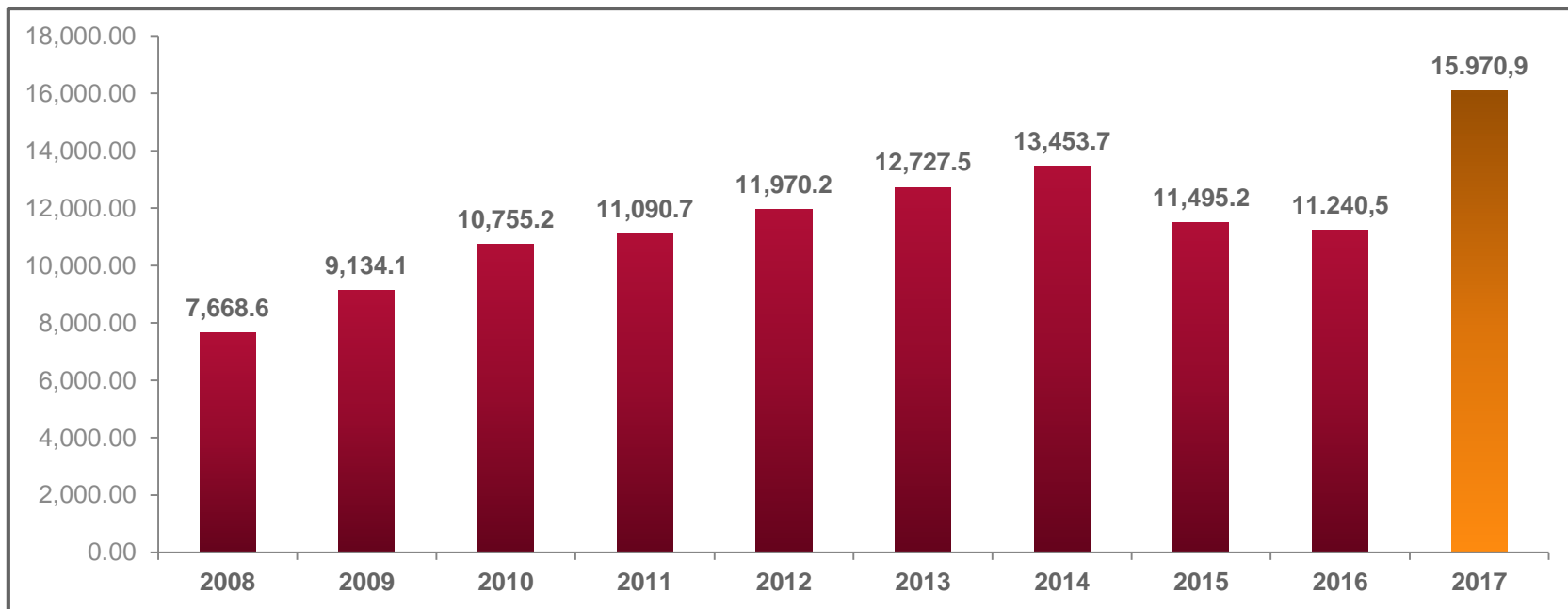
## The Northeast Constitutional Financing Fund

- Created by the Brazilian Federal Law 7827/1989, making 1.8% of the national income tax (IR) and the tax over industrialized products (IPI)
- Guidelines defined by the Ministry of National Integration and the Northeast Development Superintendency - Sudene
- Resource allocation plan defined in the FNE Annual Programming, prepared by the Northeast Bank and approved by Sudene's Deliberative Council
- **Several Financing Programs**
  - SECTORIAL** Rural, Irrigation, Agrin, Industrial, Aquipesca, Profrota Pesqueira, Proatur, Commerce and Services, Proinfra, FIES
  - MULTISECTORIAL** MPE, Pronaf, FNE-Inovação (Innovation) and FNE-VERDE (Green)

# BNB credit applications

582.687 credit agreements in 2017

US\$ million



# Our marketing differentials

BNB has differentiated products for different costumer profiles



**Territorial  
Development  
Program**



**FNE Sol  
(Sun)**



**FNE Água  
(Water)**



**AgroAmigo Sol  
(Sun)**



**BNB Card**



**BNB Agro Card**



**US\$ 2,5 billion**

Total applications in 2017

**4.025.934**

Number of operations in 2017

**2.001.150**

Active costumers in Dec/31/2017

**67% women**

**38%** with monthly family income  
of up to R\$ 1,000.00 (US\$  
313.30)

**43%** recipients of the family grant  
(Bolsa Família)



**US\$ 720.5 million**

Total applications in 2017

**518,697**

Number of operations in 2017

**1,214 million**

Active customers in Dec/31/2017

**73%** in the semiarid region

Over **85%** with annual family income of  
less than R\$ 10,000.00 (US\$ 3,132.83)

**61%** recipients of the family grant (Bolsa  
Família)

# The Territorial Development Program

It consists in a Bank strategy to improve territorial and local development by organizing, strengthening and increasing the competitiveness of the region's economic activities.

## Goals

- To strengthen the productive chains of the prioritized activities
- To incorporate technological innovations into productive activities
- To promote the participation of local economic agents in the development process
- To promote integrated and targeted financing of productive activities
- To improve the living conditions of the regional population





# The Development Agent

The program relies on the work of our Development Agents, who make the link between the Bank and the economic and institutional agents to establish and strengthen local and territorial governance, focused on the elaboration, implementation and evaluation of territorial action plans.



## Role of the Development Agent

- To understand the territorial reality
- To articulate local actors and to facilitate the process of construction, implementation and evaluation of territorial action plans



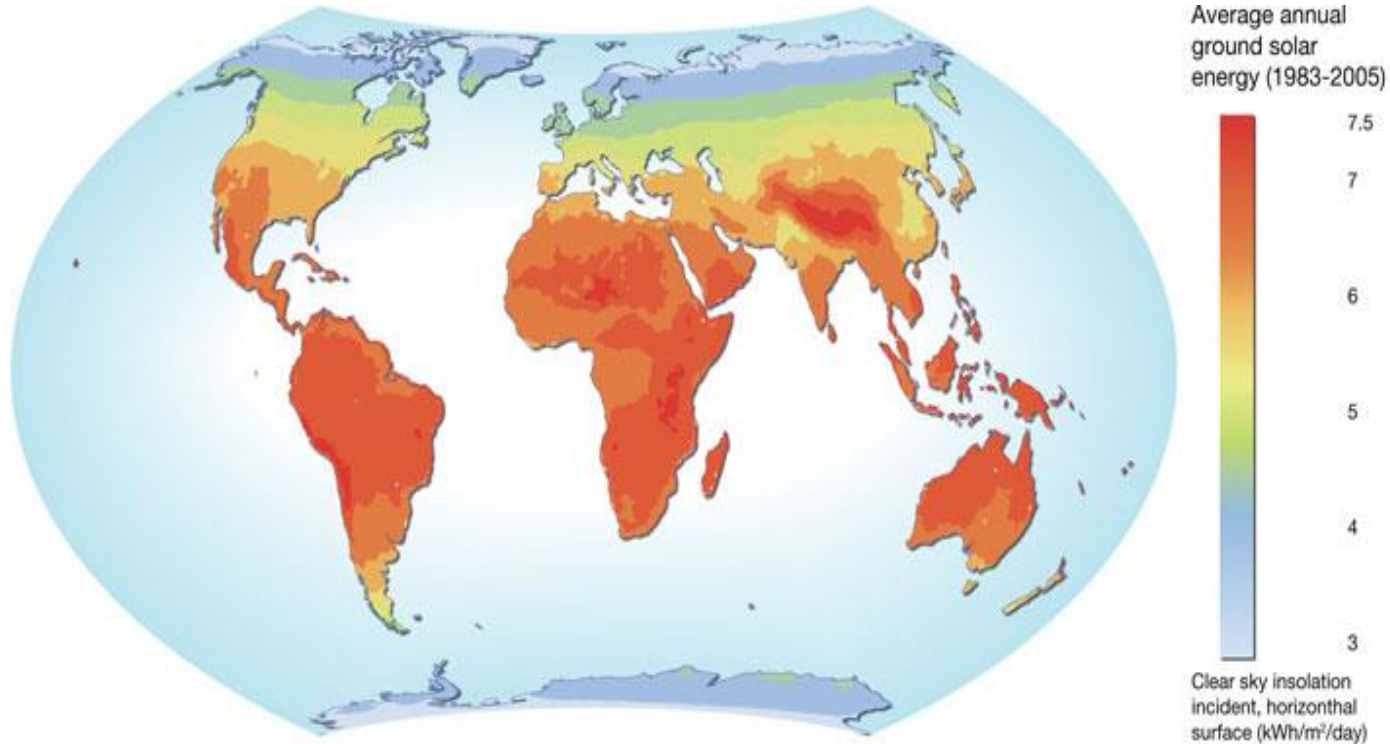
# The Territorial Development Program

## How the program works

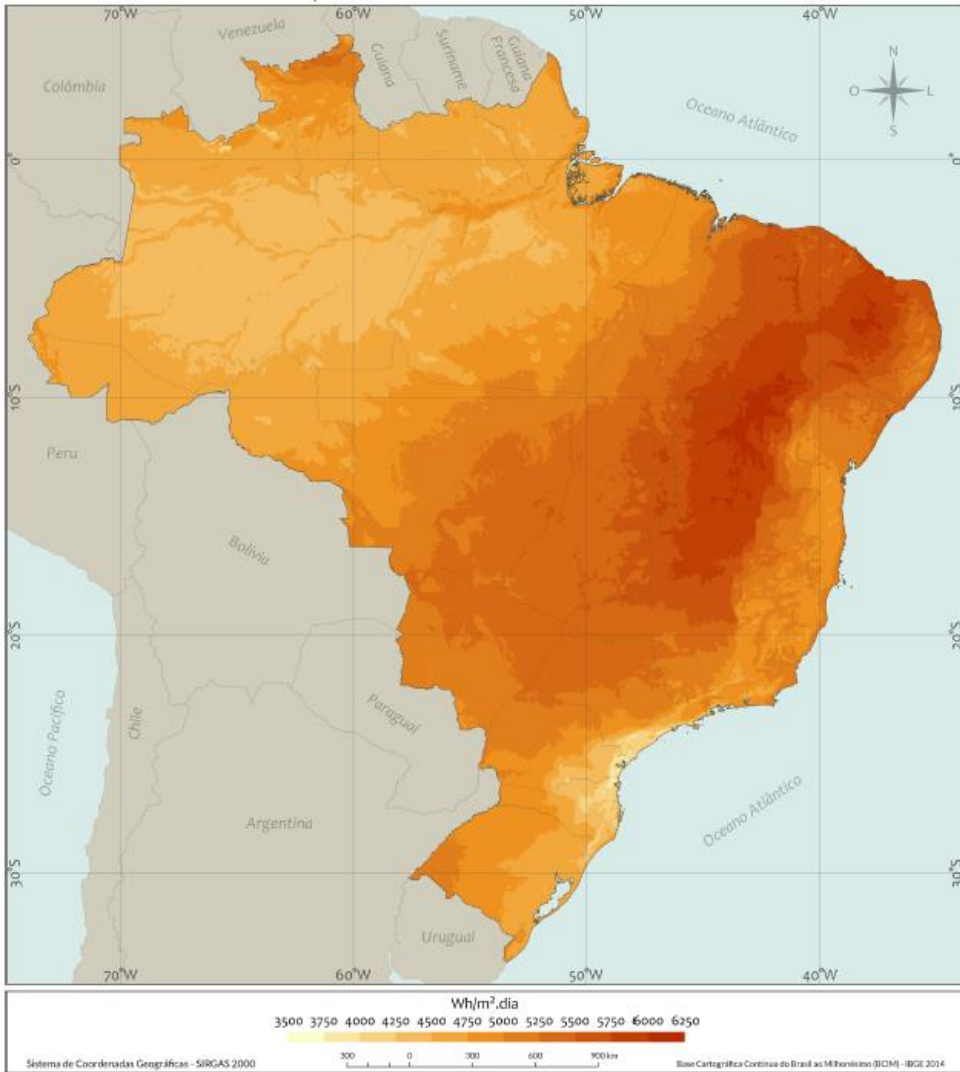
1. Select municipalities
2. Prioritize economic activity
3. Form Local/Territorial Manager Committee
4. Build Territorial Action Plan
5. Launch Territorial Action Plan (TAP)
6. Identify the Economic Agents
7. Finance Credit Demands
8. Run, Monitor and Evaluate the TAP
9. Strengthen Local and Territorial Governance



# World Solar Energy Potencial



Source: Nasa



# Solar Irradiation in Brazil

The Northeast semi-arid region of Brazil presents the highest levels of solar irradiation in the country, favoring the implementation of solar power generation projects.

Source: National Institute for Space Research (INPE)

# Solar Photovoltaic Generation

Installed capacity, position: Feb/28/2018

|                   | NET METERING     |              | CENTRALIZED GENERATION |              | TOTAL             |              |
|-------------------|------------------|--------------|------------------------|--------------|-------------------|--------------|
| GEOGRAPHICAL UNIT | POWER (KW)       | % BRAZIL     | POWER (KW)             | % BRAZIL     | POWER (KW)        | % BRAZIL     |
| BRAZIL            | 197.734,71       | 100,0%       | 1.021.601,63           | 100,0%       | 1.219.336,34      | 100,0%       |
| <b>NORTHEAST</b>  | <b>39.914,58</b> | <b>20,2%</b> | <b>746.824,77</b>      | <b>73,1%</b> | <b>786.739,35</b> | <b>64,5%</b> |
| AL                | 1.216,10         | 0,6%         | -                      | 0,0%         | 1.216,10          | 0,1%         |
| BA                | 4.996,60         | 2,5%         | 344.667,80             | 33,7%        | 349.664,40        | 28,7%        |
| CE                | 12.721,96        | 6,4%         | 5.000,00               | 0,5%         | 17.721,96         | 1,5%         |
| MA                | 3.287,07         | 1,7%         | 51,93                  | 0,0%         | 3.339,00          | 0,3%         |
| PB                | 2.090,31         | 1,1%         | -                      | 0,0%         | 2.090,31          | 0,2%         |
| PI                | 6.398,59         | 3,2%         | 10.000,00              | 1,0%         | 16.398,59         | 1,3%         |
| PE                | 2.902,48         | 1,5%         | 270.000,00             | 26,4%        | 272.902,48        | 22,4%        |
| RN                | 5.035,23         | 2,5%         | 117.105,04             | 11,5%        | 122.140,27        | 10,0%        |
| SE                | 1.266,24         | 0,6%         | -                      | 0,0%         | 1.266,24          | 0,1%         |

Source: National Agency of Electric Energy (ANEEL) – Elaboration: Northeast Bank of Brazil (BNB)/ETENE

An aerial photograph of a solar farm, showing a vast array of solar panels arranged in a grid pattern. The panels are dark blue with a fine grid of silver lines. Several metal support structures are visible, holding up the panels. The perspective is from a high angle, looking down at the panels.

## **FNE SOL**

**Energy to make your  
company grow. Innovate  
with sustainability and cost  
reduction.**

# FNE SOL

Credit line to finance renewable energy generation. Either for centralized generation, net metering (self-consumption) or off grid systems.





## **FNE SOL**

### **Target audience:**

Private industrial and agroindustrial, commercial and service provision companies, special purpose companies, farmers and rural cooperatives.

A low-angle, close-up photograph of a roof covered with dark blue solar panels. The panels are arranged in a grid pattern, separated by thin metal lines. The roof's edge, with red tiles, is visible at the top. The sky is a clear, deep blue. The text is overlaid on the left side of the image.

# **FNE SOL**

## **Expansion of the Target Audience:**

The Condel/Sudene Resolution 117/2018, included the possibility to finance individual “micro-generators”, as defined by the ANEEL Resolution 482/2012, and amendments.

The background of the slide features a dramatic sunset or sunrise scene. A large, bright sun is positioned in the center-left, casting a warm, orange and yellow glow across the sky. In the foreground, the dark silhouettes of several wind turbines are visible, their blades extending towards the sun. The overall atmosphere is one of clean, renewable energy.

## **FNE SOL**

### **Financeable items:**

All the components of renewable energy generation systems (photovoltaic, wind power, biomass or small hydroelectric plants - SHP), including the installation.

# FNE SOL

## Terms of financing

|                    |  |
|--------------------|--|
| <b>Limitations</b> | Up to 100% of the investment. Only certified equipment accepted - National (INMETRO) or International  |
| <b>Interests</b>   | <p>Rural Sector: from 5.6525% to 7.65% a.y., includes 15% compliance bonus<br/>Other Sectors: according to the Medida Provisória 812, 12/26/2017</p> <p>Examples of interests in May/2018:<br/>Gross annual revenue of up to R\$ 90 million (US\$ 28.2 million) = <b>4.89</b> % a.a. *<br/>Gross annual revenue higher than R\$ 90 million (US\$ 28.2 million) = <b>5.31</b> % a.a.*</p> |
| <b>Deadlines**</b> | Up to 12 years, including a grace period of up to 01 year  |
| <b>Guarantees</b>  | Mortgage, Fiduciary alienation, Guarantee or Guarantor   |

\* Considering the Brazilian Broad Consumer Price Index (IPCA) of 3.50% a.y. – Source: Focus Report - BACEN

\*\*Deadlines can be extended for up to 20 years, including a grace period of up to 8 years, in exceptional cases that are technically justified by the Bank's competent Central Credit Office

# FNE SOL

## Net metering – Applications by State

| STATE        | 2016*                |                       | 2017                 |                       | 2018**               |                       | TOTAL                |                       |
|--------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
|              | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) |
| AL           | 3                    | 65.8                  | 6                    | 321.0                 | 1                    | 34.1                  | 10                   | 420.9                 |
| BA           | 17                   | 1,253.1               | 49                   | 2,545.3               | 3                    | 122.9                 | 69                   | 3,921.2               |
| CE           | 19                   | 793.2                 | 51                   | 2,360.7               | 3                    | 97.9                  | 73                   | 3,251.7               |
| ES           | 6                    | 71.3                  | 1                    | 15.7                  |                      | 0.0                   | 7                    | 86.9                  |
| MA           | 4                    | 245.7                 | 17                   | 1,445.6               | 6                    | 226.1                 | 27                   | 1,917.3               |
| MG           | 11                   | 727.7                 | 16                   | 997.4                 | 3                    | 84.9                  | 30                   | 1,810.1               |
| PB           | 4                    | 83.1                  | 11                   | 447.5                 | 4                    | 184.8                 | 19                   | 715.4                 |
| PE           | 13                   | 664.1                 | 31                   | 1,869.5               | 2                    | 93.7                  | 46                   | 2,627.3               |
| PI           | 1                    | 13.5                  | 9                    | 640.5                 | 2                    | 77.9                  | 12                   | 731.8                 |
| RN           | 18                   | 1,608.4               | 59                   | 3,118.0               | 9                    | 372.4                 | 86                   | 5,098.8               |
| SE           | 10                   | 239.6                 | 14                   | 653.2                 | 2                    | 51.1                  | 26                   | 943.9                 |
| <b>TOTAL</b> | <b>106</b>           | <b>5,765.3</b>        | <b>264</b>           | <b>14,414.4</b>       | <b>35</b>            | <b>1,345.7</b>        | <b>405</b>           | <b>21,525.5</b>       |

Source: Northeast Bank data bank

\*From May/2016

\*\*Up to March/2018

Position: March/2018

# FNE SOL

## Solar Power Centralizer Generation – Applications by State

| STATE | 2017                 |                       | 2018*                |                       | TOTAL                |                       |
|-------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
|       | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) | NUMBER OF OPERATIONS | VALUE (US\$ THOUSAND) |
| BA    | 10                   | 259.9                 | 4                    | 99.2                  | 14                   | 359.1                 |
| CE    |                      |                       | 4                    | 149.6                 | 4                    | 149.6                 |
| PB    | 2                    | 55.2                  |                      |                       | 2                    | 55.2                  |
| PE    | 7                    | 213.1                 |                      |                       | 7                    | 213.1                 |
| PI    | 4                    | 116.8                 |                      |                       | 4                    | 116.8                 |
| TOTAL | 23                   | 645.0                 | 8                    | 248.8                 | 31                   | 893.8                 |

Source: Northeast Bank data bank

\*Up to March/2018

Position: March/2018

**Acelerar para  
desenvolver**



**Banco do  
Nordeste**

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