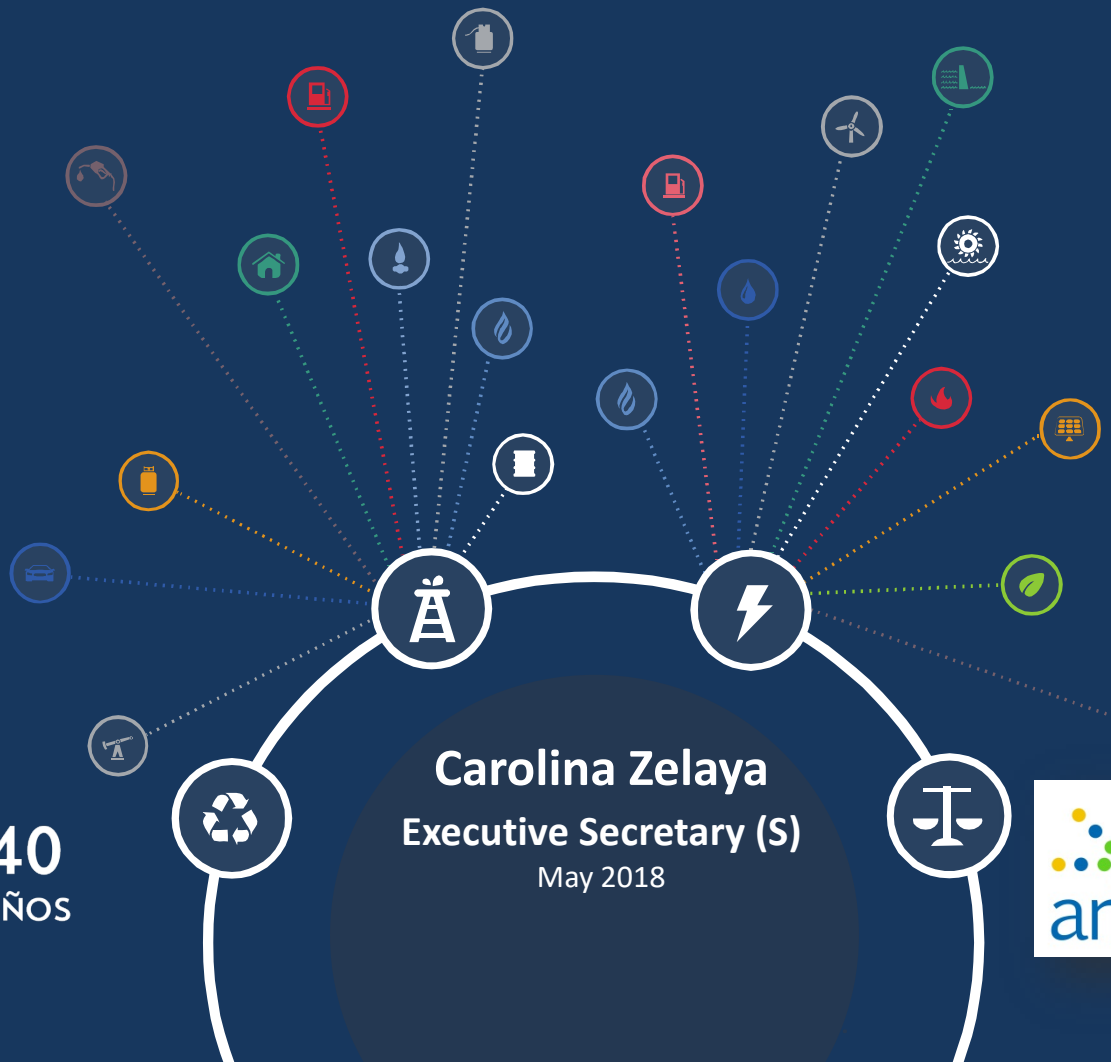
# ENERGY TENDERS IN CHILE

## National Energy Commision




**Carolina Zelaya**

**Executive Secretary (S)**


May 2018

CNE 40 AÑOS

ariae

asociación iberoamericana de entidades reguladoras de la energía

associaçao iberoamericana de entidades reguladoras da energia

# ENERGY TENDERS CONTEXT

Chile

# KEY INDUSTRY PLAYERS

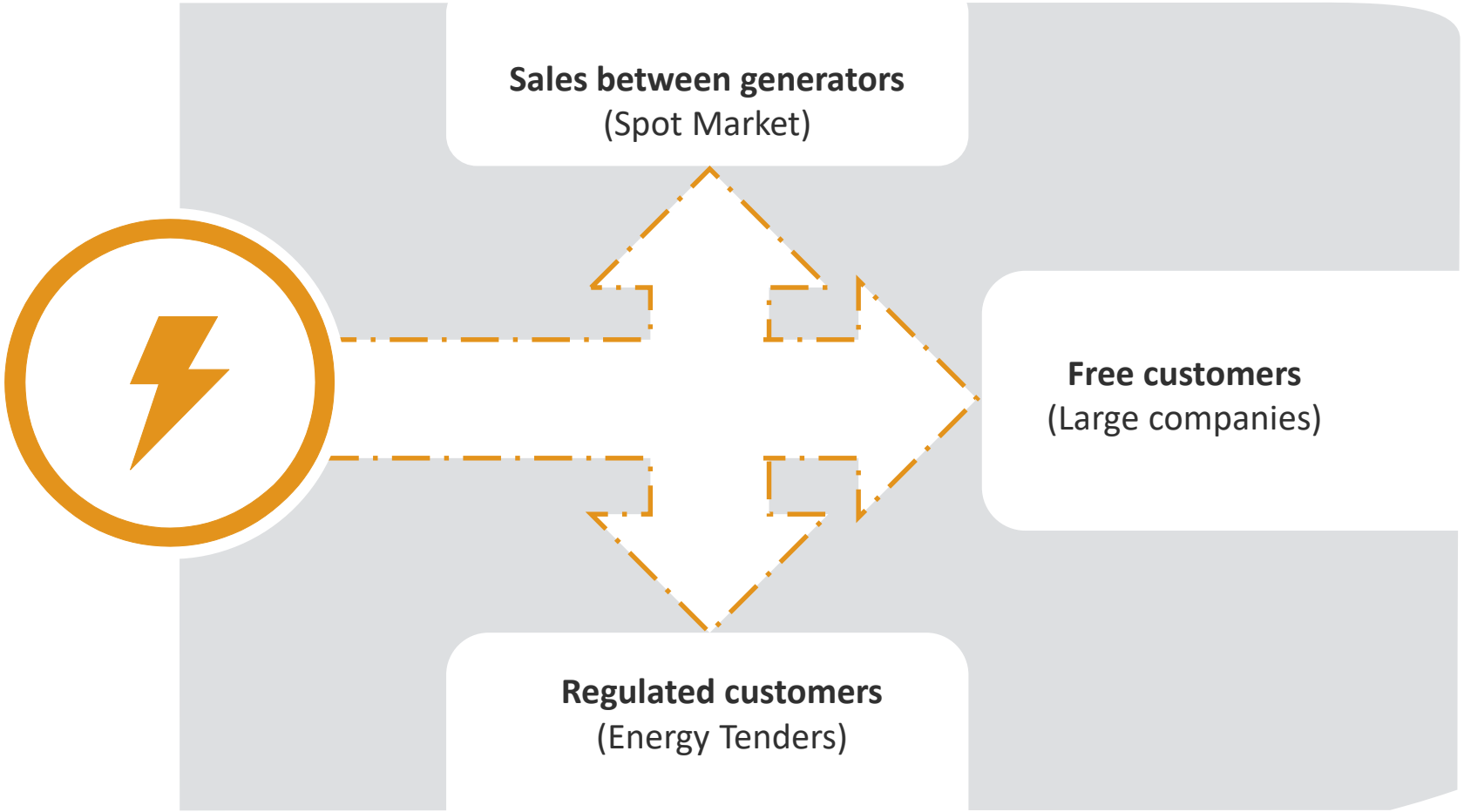
**MEN – CNE - SEC**

**Coordinator**

| Generation | Transmission | Distribution | Clients |
|---|---|---|---|
|  |  |  |  |
| Private<br>Free Prices | Private<br>Regulated Prices | Private<br>Regulated Prices | Regulated (<0,5 MW)<br>Free Clients (>5 MW) |

# ELECTRICITY GENERATION IN CHILE

*The generation segment consists of a group of electricity companies which own electricity generation plants. It includes three types of business:*



# Energy Tenders in Chile

- Bilateral contract between generator and distribution companies
- Objective: Award long-term contracts with fixed energy price (USD) + indexation
- Capacity payment is fixed at the current price set by regulation + indexation
- Contract establishes maximum amount of annual energy committed by generator
- Monthly billing considers only the actual energy being consumed by distributors

# Tenders Law 20.805 (2015)

- Responsability of the process: CNE
- Annual tenders' report with demand forecast
- 3 types of tenders defined:
  - Long Term Tender
  - Short Term Tender
  - Exceptional Short Term Tender
- Transfer of excess energy is regulated
- Supply of non-contracted energy is regulated

# TENDER'S MAIN FEATURES

- Supply includes all distribution companies of Chile
- 20-year contract duration
- 5 years until beginning of supply
- Technology neutral
- Innovative design for energy blocks (hourly/quarterly)
- Maximum price is hidden
- Bids are assessed according to their indexation formula
- Contract price review because of regulatory changes
- Option to postpone or terminate contract early
- Option to cede the contract to a third party

# Contract Obligations

mechanisms to guarantee fulfilment of the project

## Guarantee Bonds

**Bid bond:**

- 200 UF/GWh (9,000 USd/GWh)
- Valid until 25% progress on the project

**Performance bond:**

- 600 UF/GWh (27,000 USd/GWh)
- Executed if project is not operational within the 1st year of energy supply.

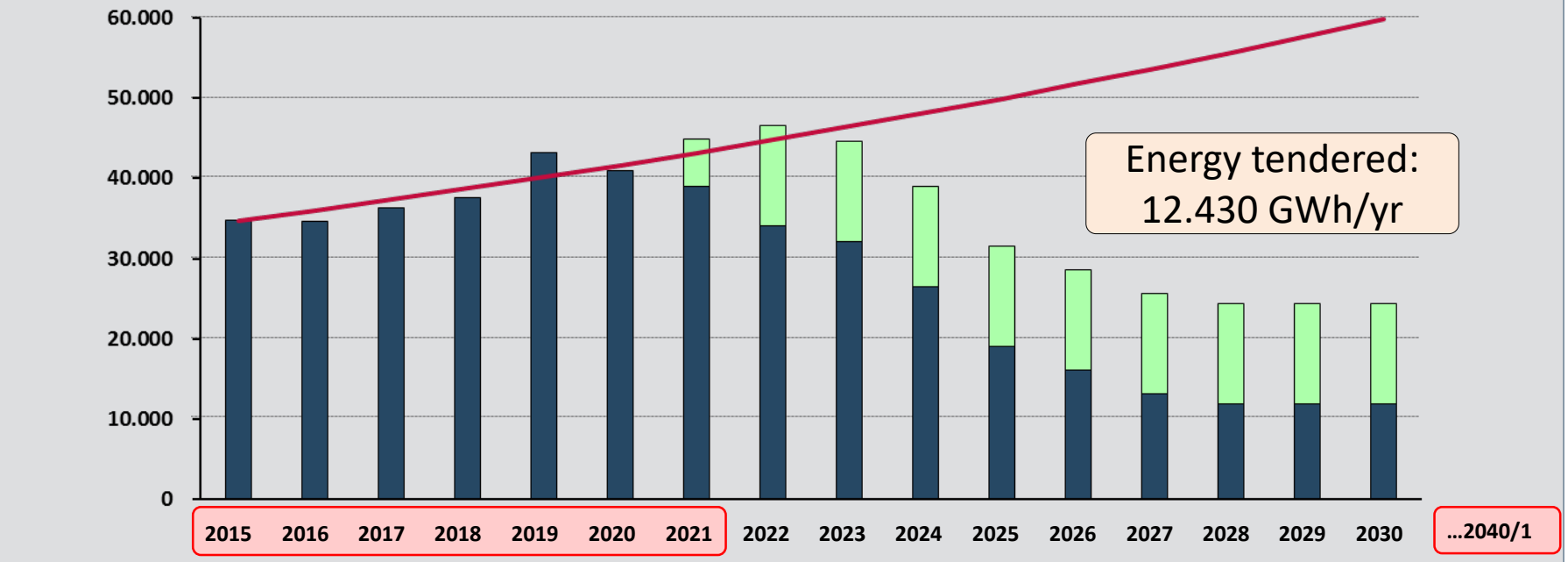
## Risk Rating Report

- Minimum BB+ rating
- Report includes follow-up work

## Technical Audit

- Monitors progress on the project
- Fines of 15 UF/GWh (670 USd/GWh) when failing every 2 milestones

# Energy requirement defined by projection of demand




Contract's duration

20 years

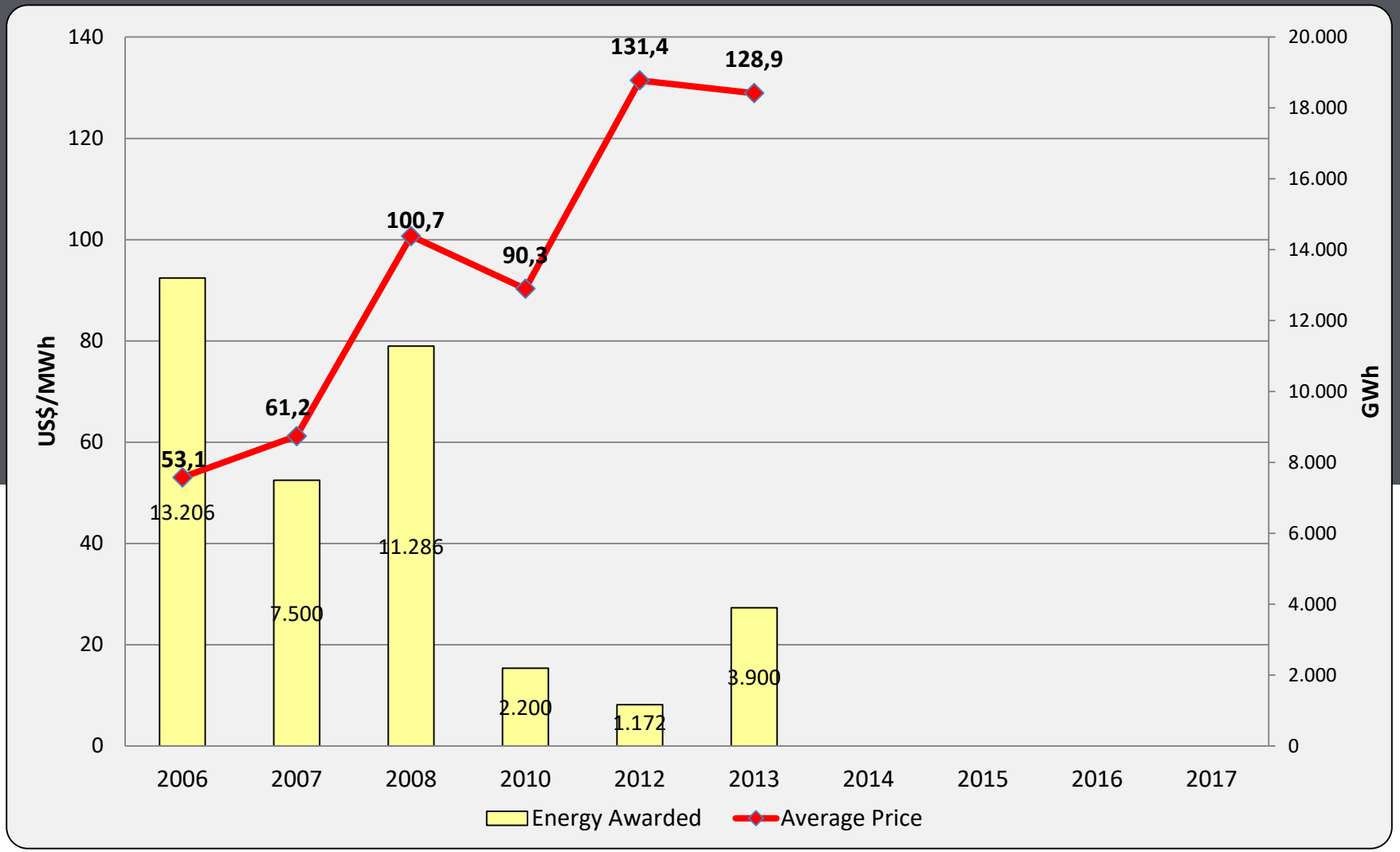
**May 2015** — Tender's Call

**Jul 2016** — Presentation of Offers

**Jan 2021** — Beggining of Supply

# ENERGY TENDERS' RESULTS

## AVERAGE PRICE BY ENERGY TENDER PROCESS



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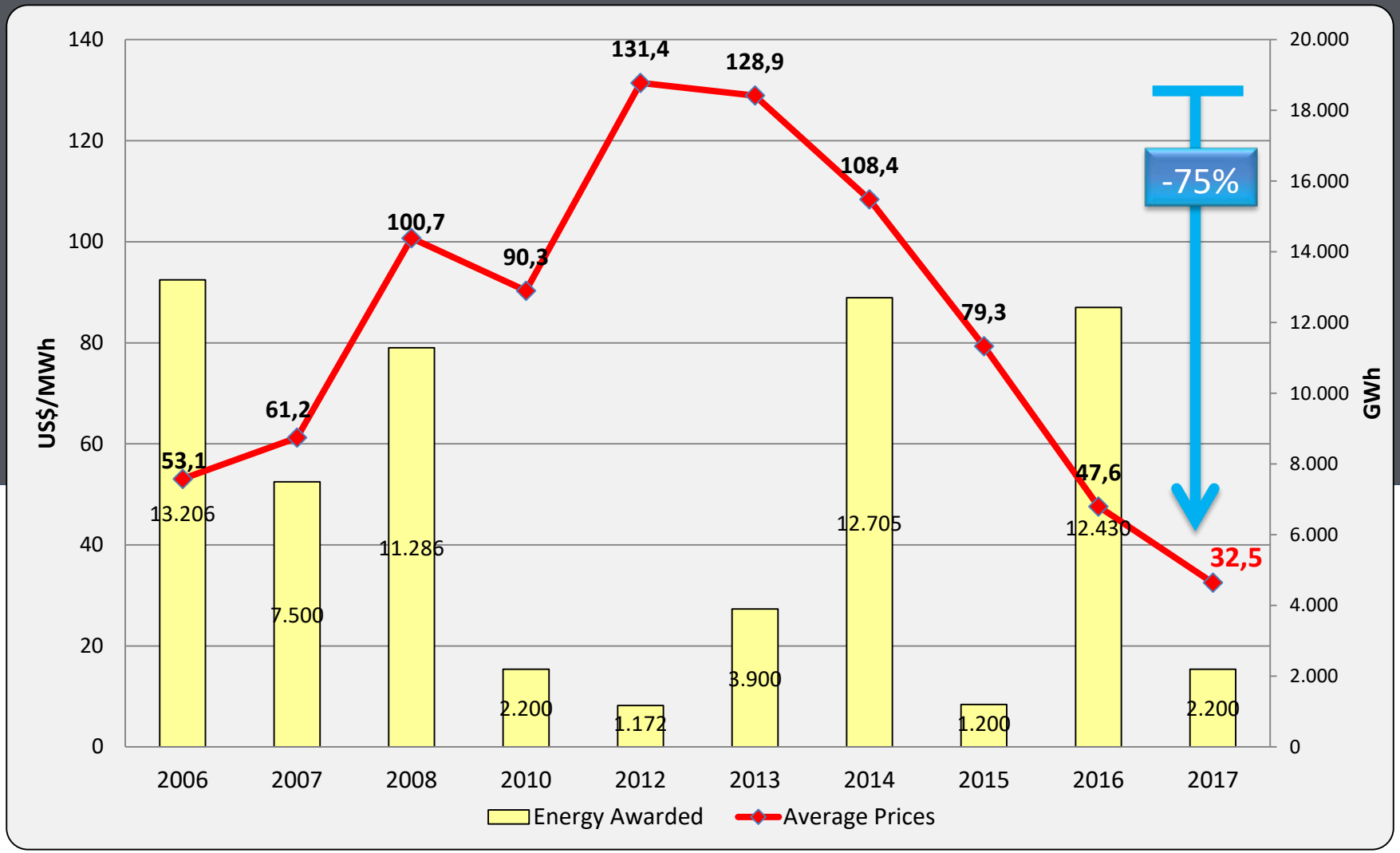

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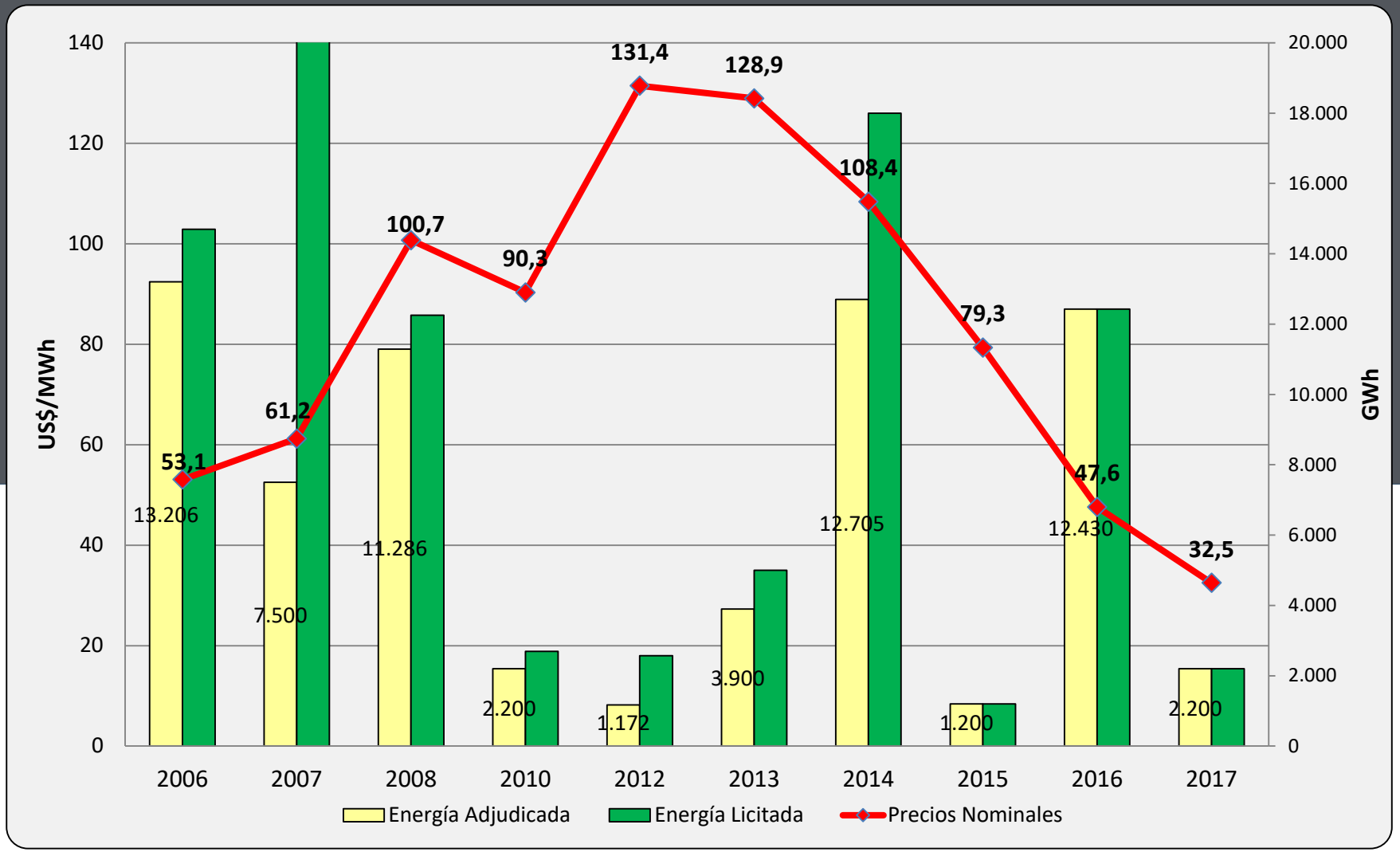
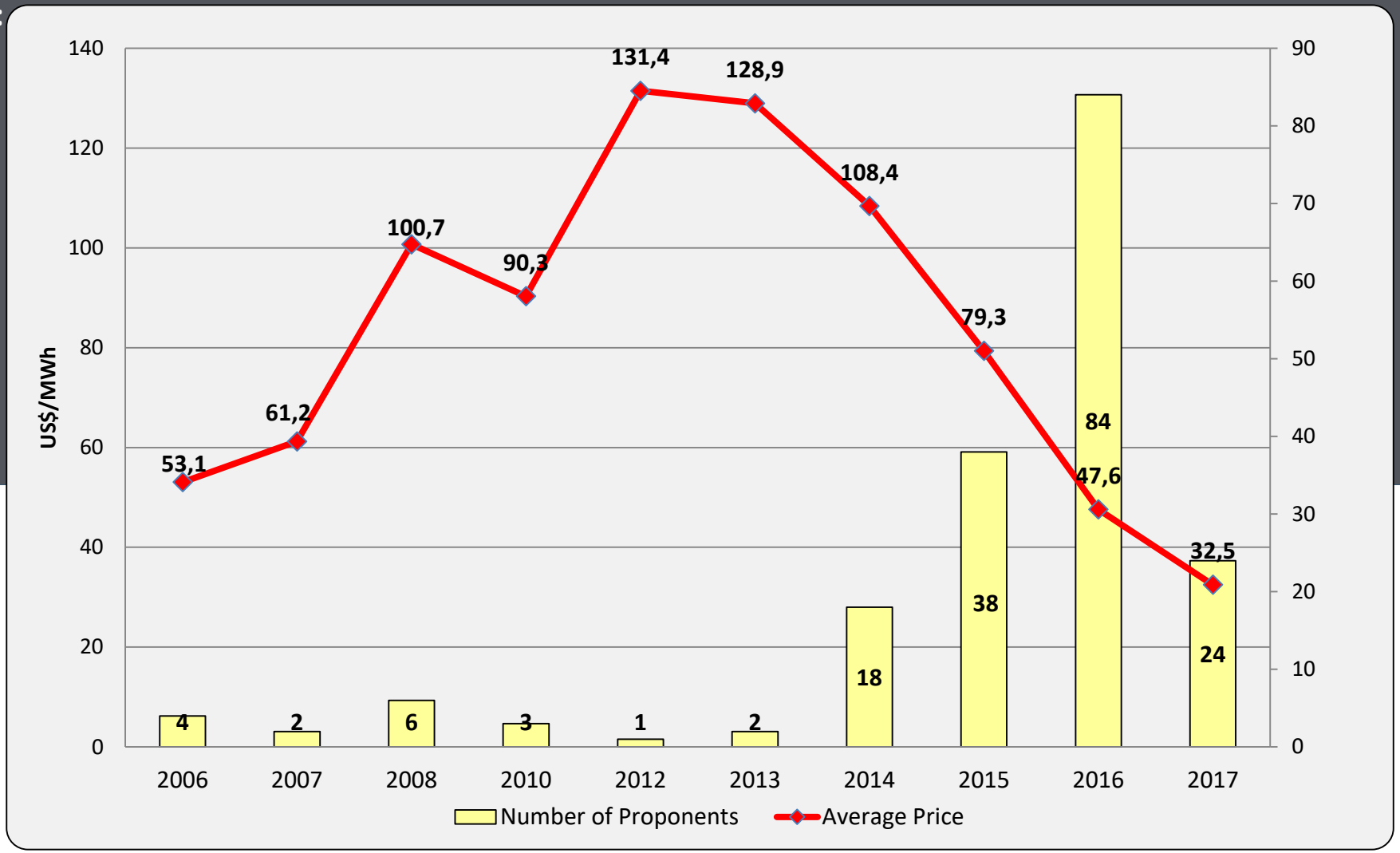


# ENERGY TENDERS' RESULTS

## INCREASE IN COMPETITION IN ENERGY TENDERS

:



# 2017/01
# TENDER

**Chile**

# Lic. 2017/01: Features

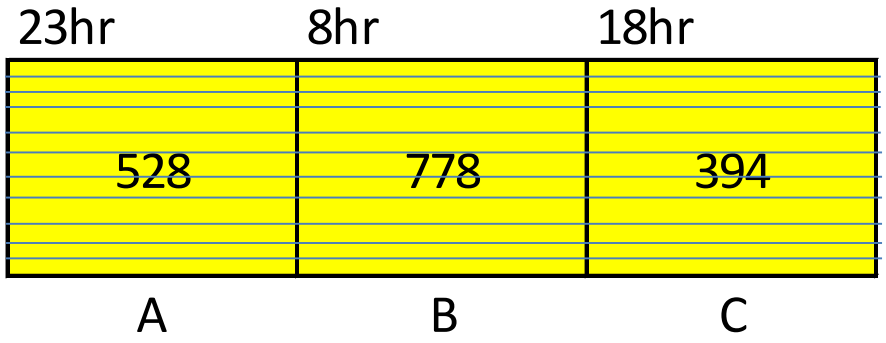
- 2.200 GWh/yr awarded on November 2017
  - Beginning of supply: January 1st 2024 (20yrs)

- Similar conditions of 2016 tender:
  - Technology neutral
  - Increase in guarantees (doubled)
  - Incorporation of quarterly energy blocks
  - Offers by range of energy
  - 2-stage awarding mechanism

# Hourly and Quarterly blocks

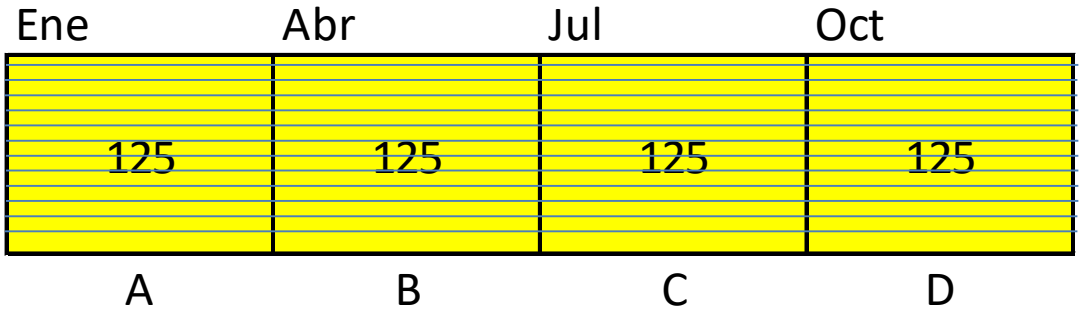
- 2017 tender: 1.700 GWh hourly and 500 GWh quarterly blocks
- Allows participation of mini-hydro and renewable projects

Block N°1: (hourly)




= 1.700 GWh

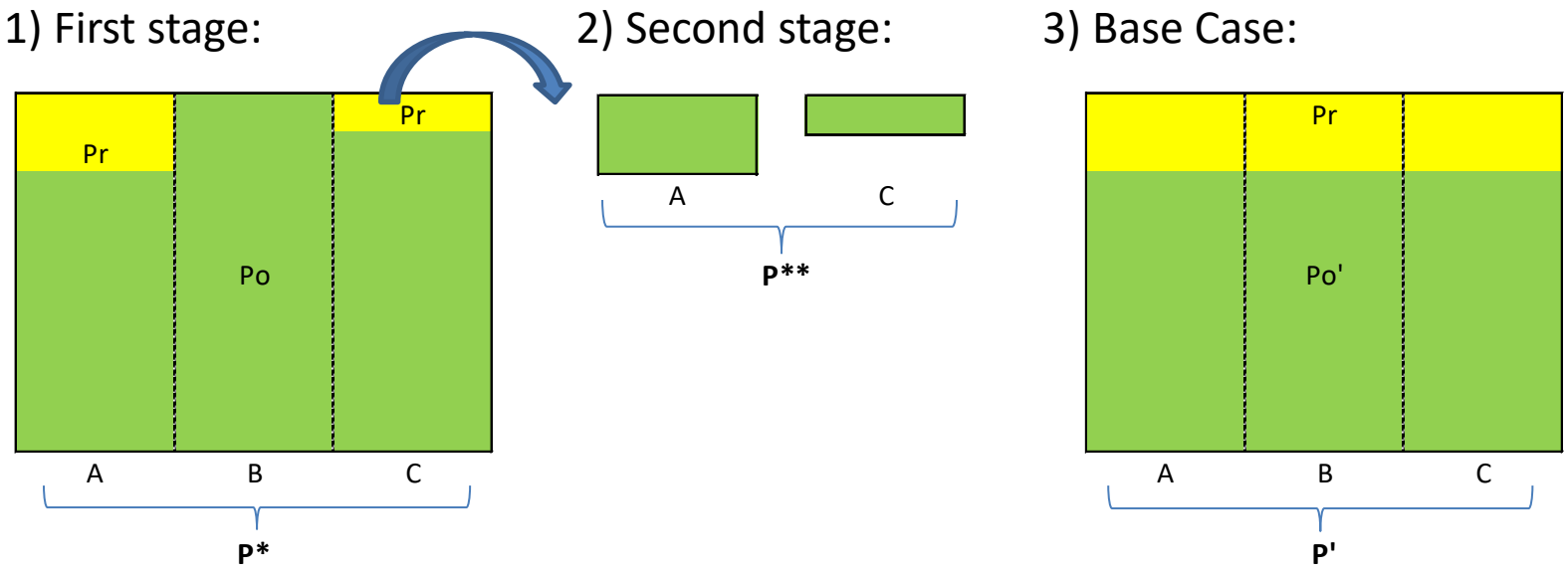
Block N°2: (quarterly)




= 500 GWh

# Awarding mechanism

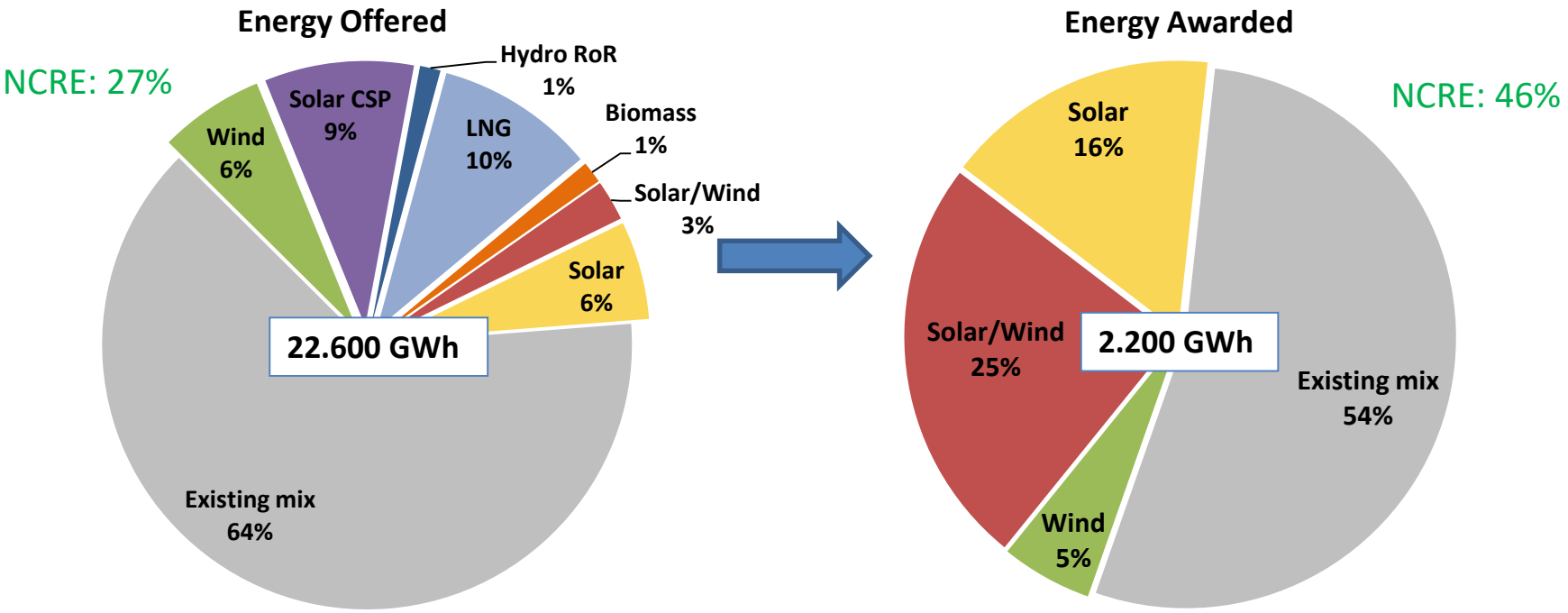
- Objetive is to award 24hr energy blocks at lowest price
- Considers hourly allocation in 2 stages, and comparison with base case of restricted 24hr-awarding mode




- Lowest price between result of 1st+2nd stage (P*+P**) versus base case (P’) gets awarded

# Results: Participation by technology

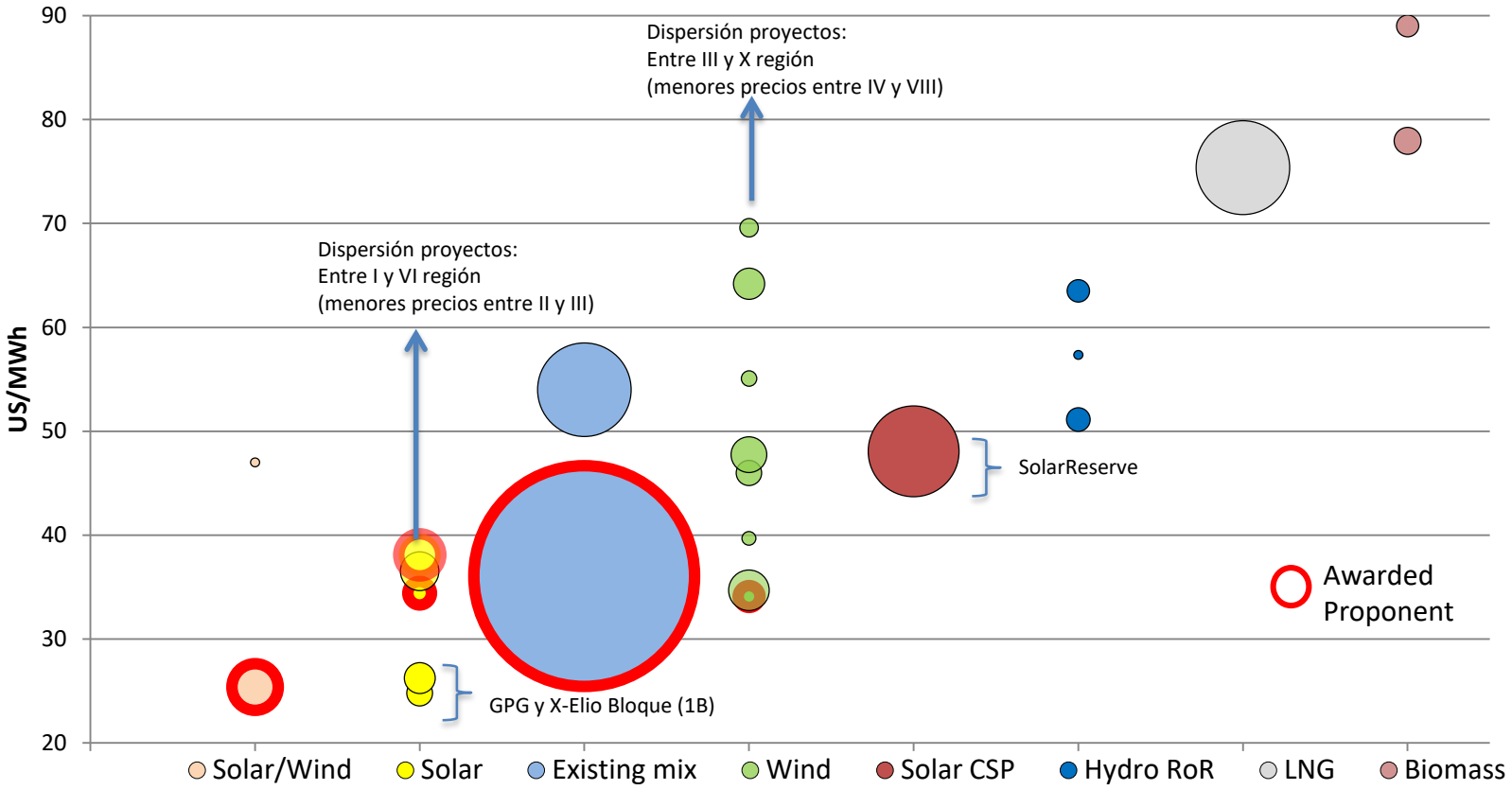
*Energy offered v/s awarded by technology*




→ Energy offered was 10 times more than energy auctioned!
→ No coal nor diesel offers
→ Solar/Wind and pure Solar were the most successful technologies

# Results: Offers by technology

*Price bids by technologies*

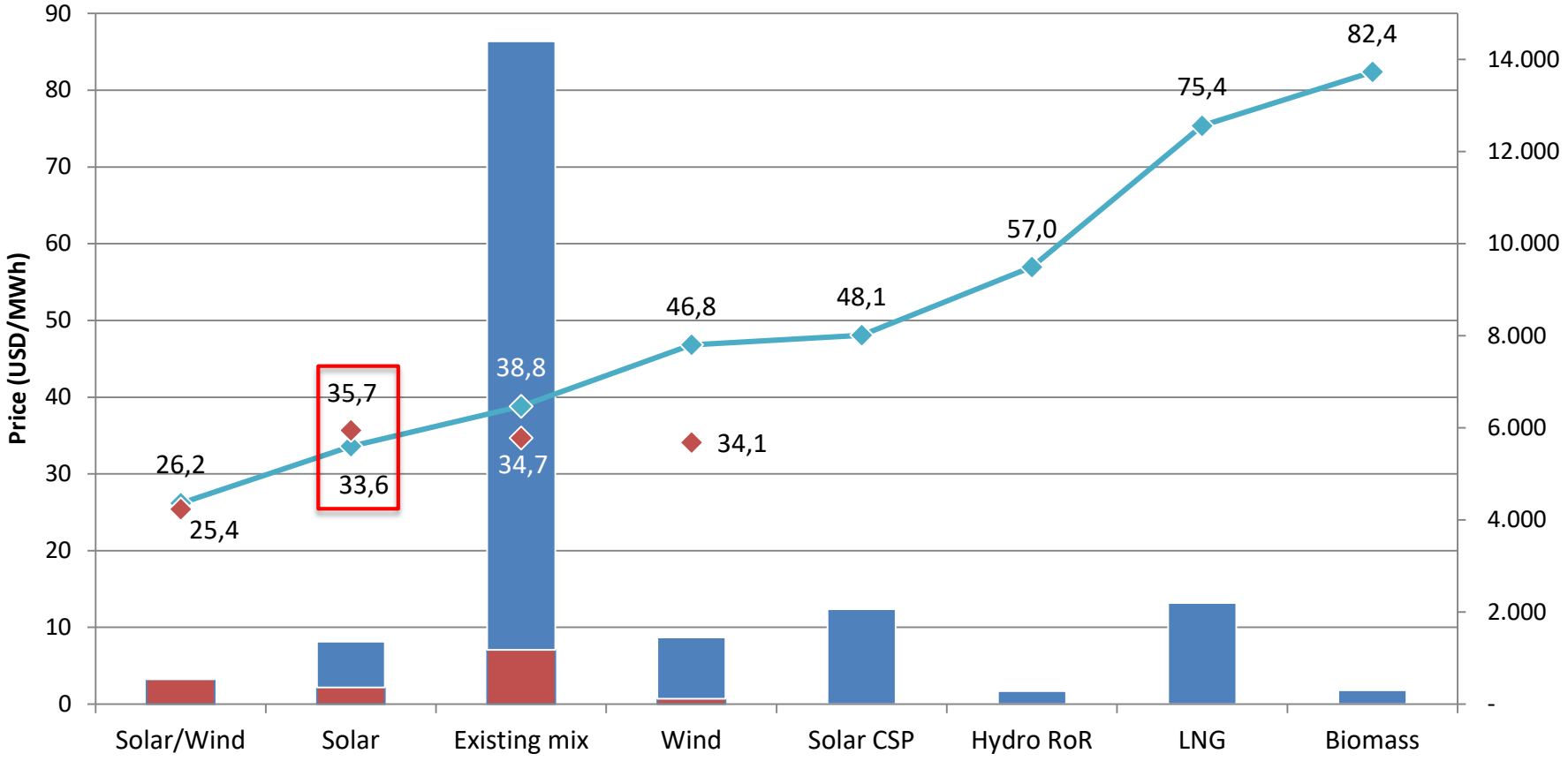



→ Average offer price: **42,8** USD/MWh

→ Average awarded price: **32,5** USD/MWh

# Results: Offers by technology

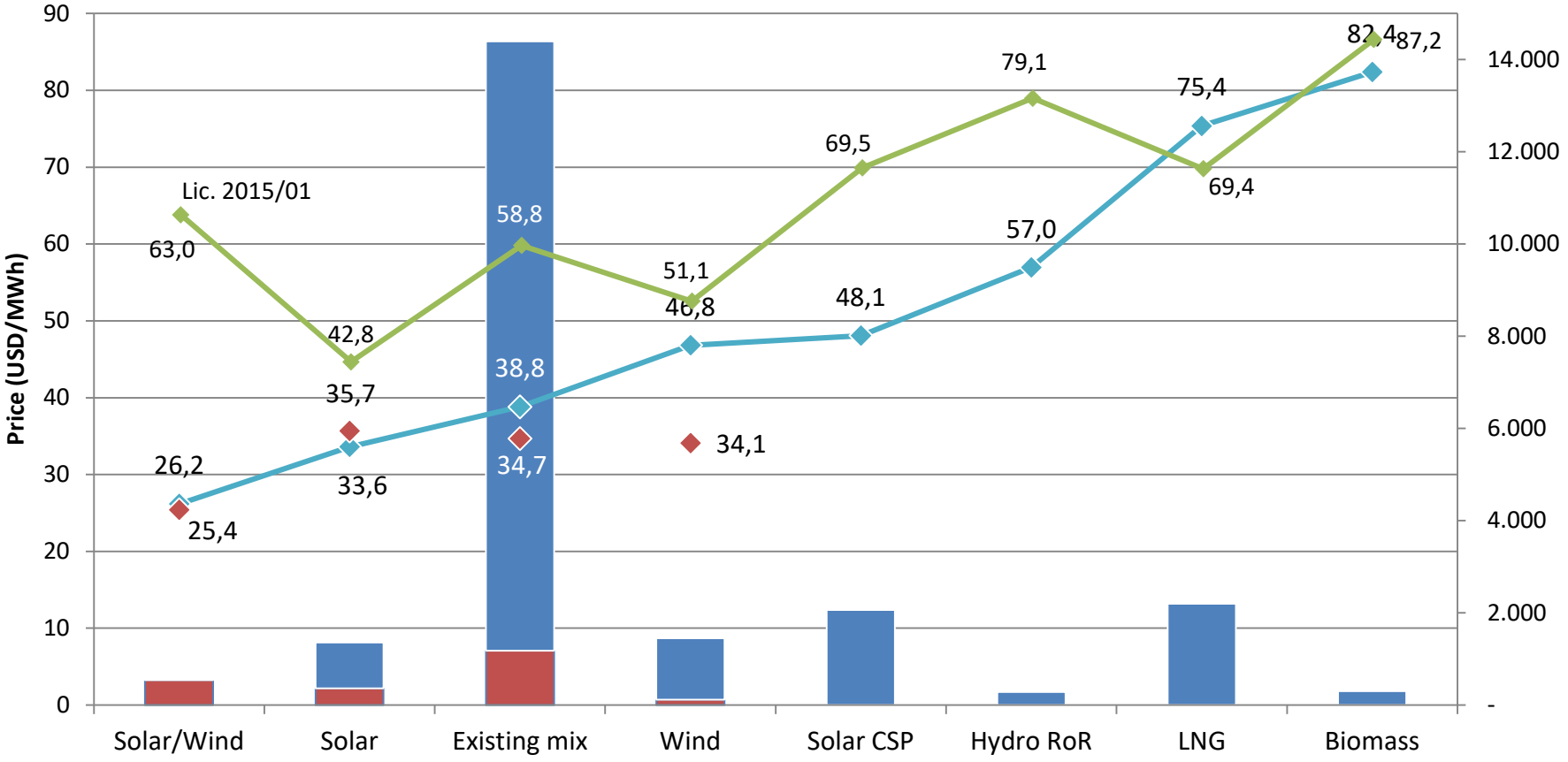
*Energy and prices offered v/s awarded*




→ Tender winners are NCRE projects offering in 24hr mode

# Results: Offers by technology

*Energy and prices offered v/s awarded*



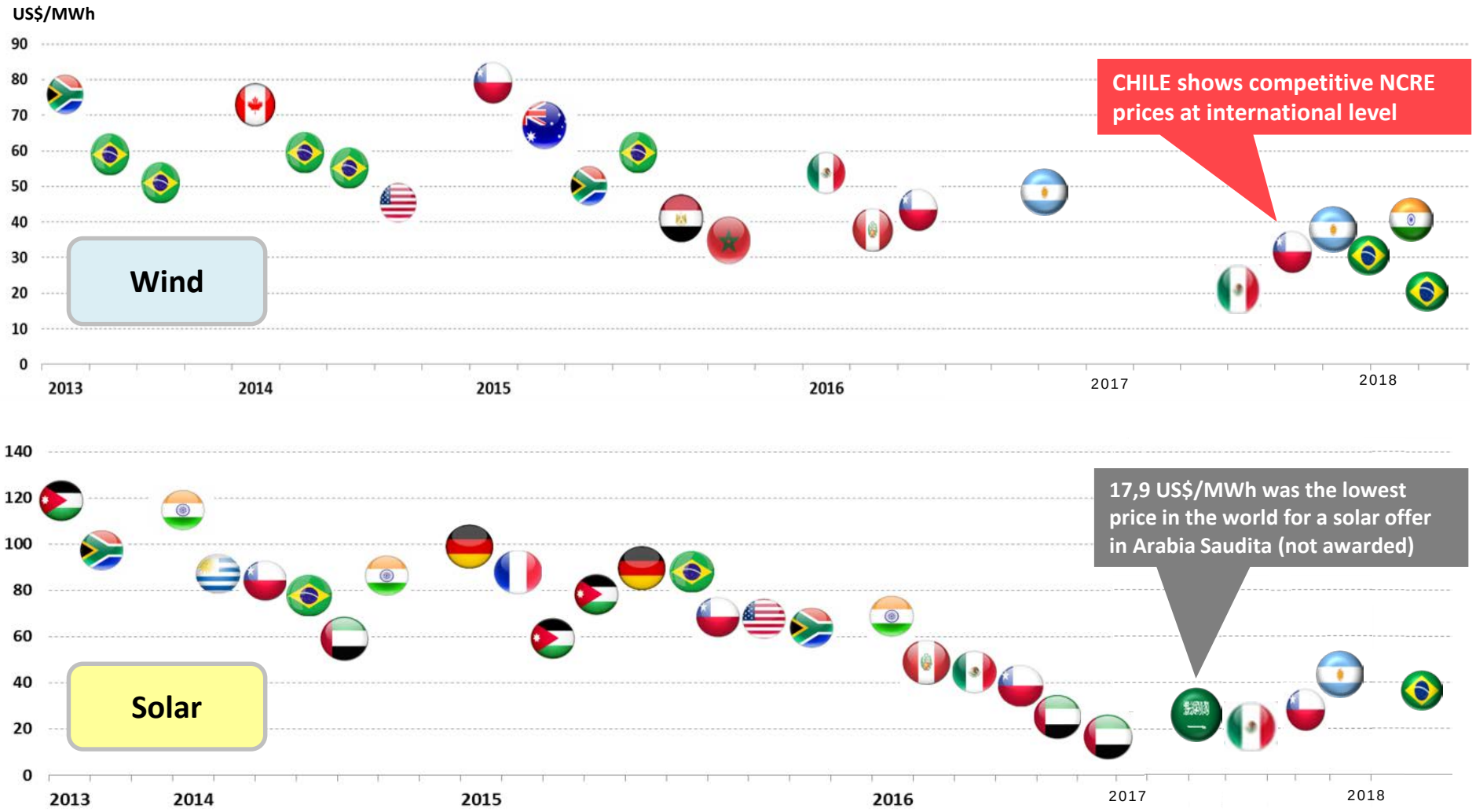

→ Tender winners are NCRE projects offering in 24hr mode

# 2017 Tender Results

| Company Awarded | Average Price (USD/MWh) | Energy awarded (GWh) | % | Type |
|---|---|---|---|---|
| Enel Generación Chile | 34,7 | 1.180 | 54% | Existing mix |
| Energía Renovable Verano Tres | 25,4 | 540 | 25% | Solar/Wind |
| Atacama Solar | 36,5 | 220 | 10% | Solar |
| Cox Energía | 34,4 | 140 | 6% | Solar |
| Atacama Energy Holdings | 34,1 | 120 | 5% | Wind |
| Total | 32,5 | 2.200 | 100% | |

→ Tender's average awarded price of **32,5 USD/MWh** is the record lowest price achieved in the history of tender processes in Chile

# International Results

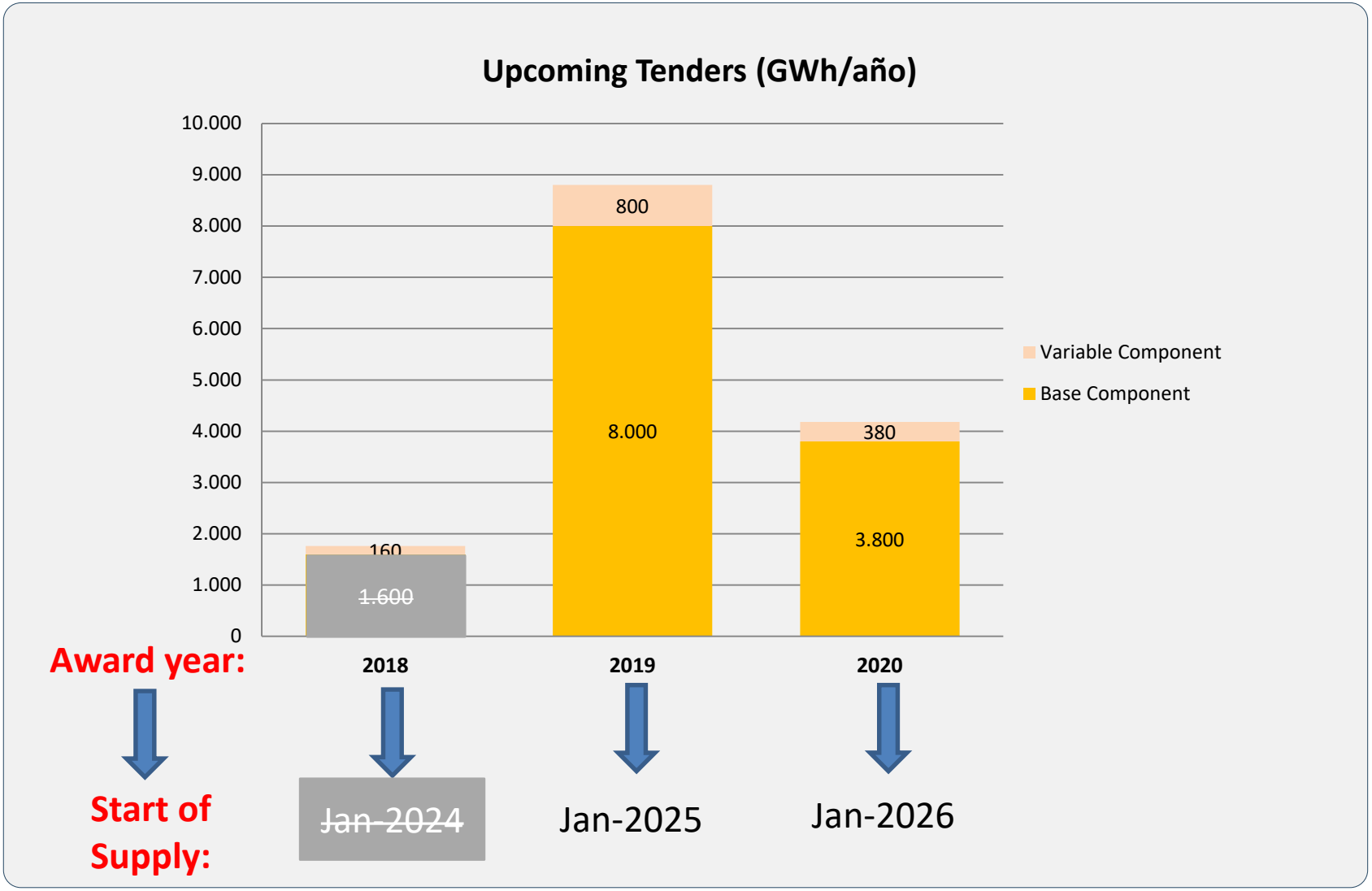



→ Chile's energy offers are in line with the worldwide tendency

# UPCOMING TENDERS

Chile

# Energy tenders: Next process



# CONCLUSIONS

- The energy tenders give the opportunity to acquire 20 year PPA's and materialize new generation investments
- This year's Tender Report will update the demand projection in order to define the best time and amount of energy to tender
- Innovative hourly energy blocks, allows different generation projects and NCRE technologies to participate.
- Recent regulatory changes incorporate new elements to reduce risks faced by generators and improve investment conditions

# THANK YOU

## National Energy Commission

CNE | 40 AÑOS

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