

I-SEM Training

SEMOpX Settlements

September 2017



Agenda

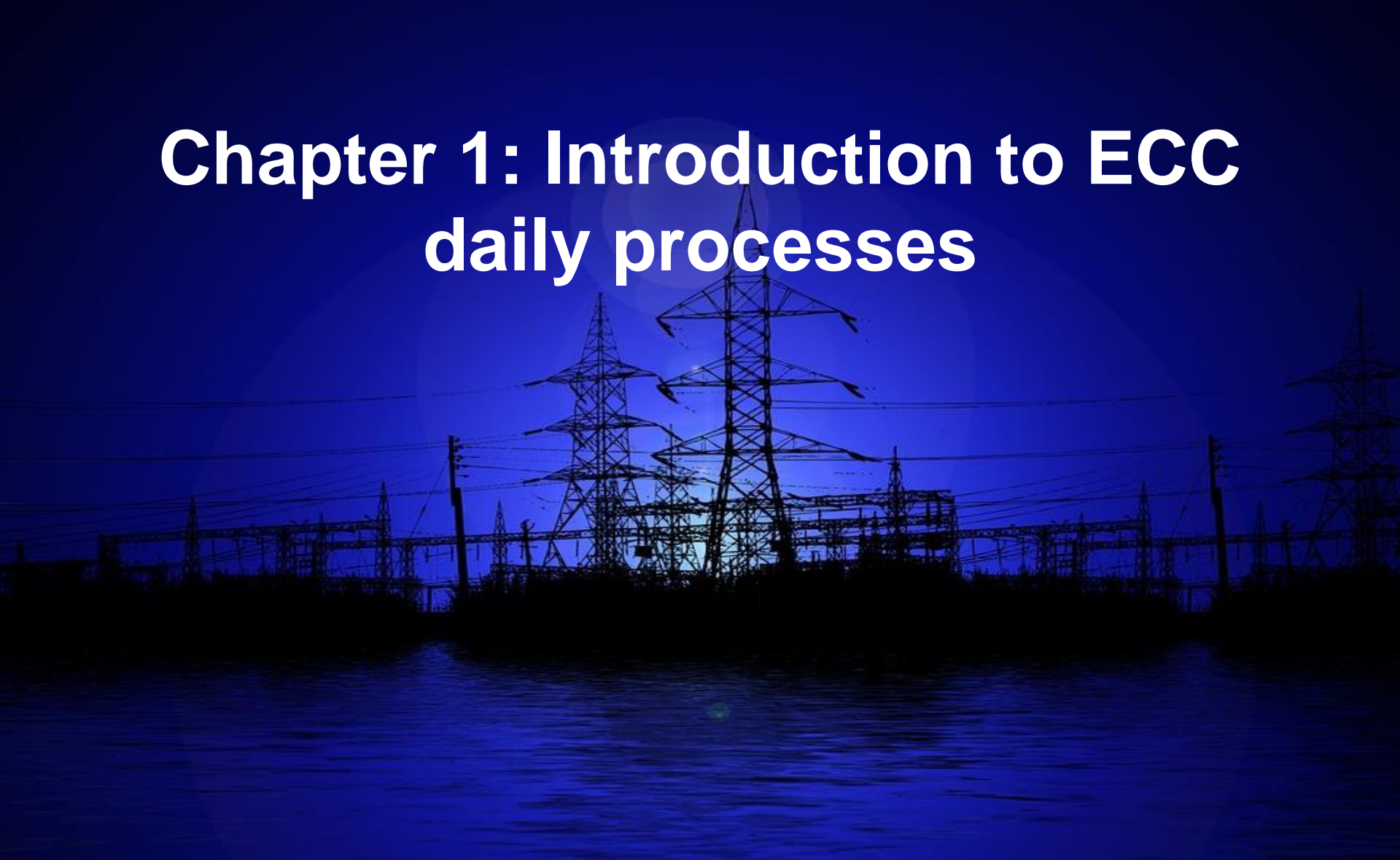
- Introduction to ECC daily processes
- Formation of a contract
- Physical Settlement of a contract
- Financial Settlement of a contract
- Course Summary
- SEMOpx Settlement Quiz

Learning Objectives

After completing self-learning and instructor-led training for this course, you will have an understanding of:

- The daily activities of ECC for settlement
- How contracts are formed by ECC
- How contracts are settled financially and physically by ECC

Chapter 1: Introduction to ECC daily processes



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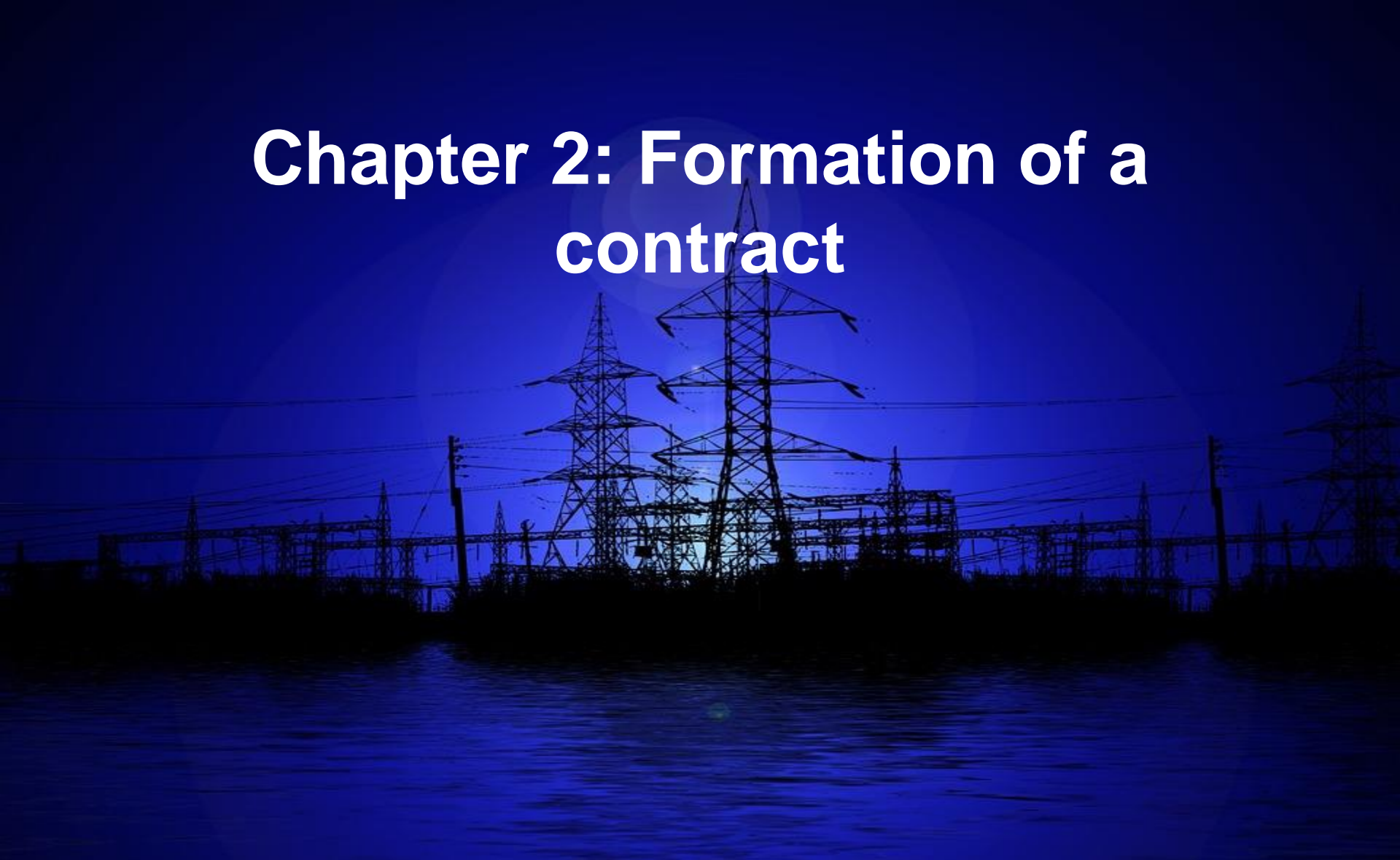
SEMOpX and Central Clearing

- SEMOpX is a NEMO for Ireland and Northern Ireland:
 - Responsible for trades, market coupling etc.
- NEMOs act as central counter party (CCP) for all trades:
 - Buy from the sellers and sell to the buyers
 - If any shortfall by participant, CCP guarantees payment
 - This ensures all trades on the exchange are low risk
- SEMOpX have procured ECC as service provider:
 - Act as CCP on behalf of SEMOpX
 - Perform clearing, credit risk and settlement services
 - Act as guarantor for all payments

ECC Key Daily Processes

- Physical Settlement of contracts:
 - Automatic transfer of contract quantities to SEMO
- Financial Settlement:
 - Formation of binding contracts
 - Settlement of contracts into settlement amounts
 - Issuance of payment orders and invoices
 - Transfer of funds to and from the banks
- Credit risk management:
 - Calculation of credit risk exposures/margins
 - Management of trading limits

Chapter 2: Formation of a contract



Trades in SEMOpx

- Trades may come from either:
 - SEMOpx auctions, or
 - SEMOpx continuous intraday trading
- Trades sent from SEMOpx to ECC:
 - Once an order is accepted it is sent to ECC for clearing
 - Once sent to ECC it becomes a contract
- All contracts are irrecoverable:
 - Payment is guaranteed and must be made
 - Volumes must be submitted to SEMO
 - SEMO will manage settlement of delivery of the energy

Timing of trades

- Auction trades will be sent at set times:
 - Will be sent following each auction
 - Approximately 30 minutes after publication of results
- Continuous trades will be sent every 15 minutes:
 - Continuous trades bundled every 15 minutes
 - After trade is matched, it will be sent at next available window
- Trades will be sent automatically:
 - Includes outside of working hours and non-working days
 - Trades will still become binding contracts automatically
 - Settlement of contracts will still only take place on working days

Flow of a trade

Order (Participant)

Bid to buy or offer to sell

Submitted by the participant SEMOpx



Trade (SEMOPx)

Order which has been accepted by SEMOPx (i.e. will form a contract)

Has not yet been notified to ECC, not a binding contract



Contract (ECC)

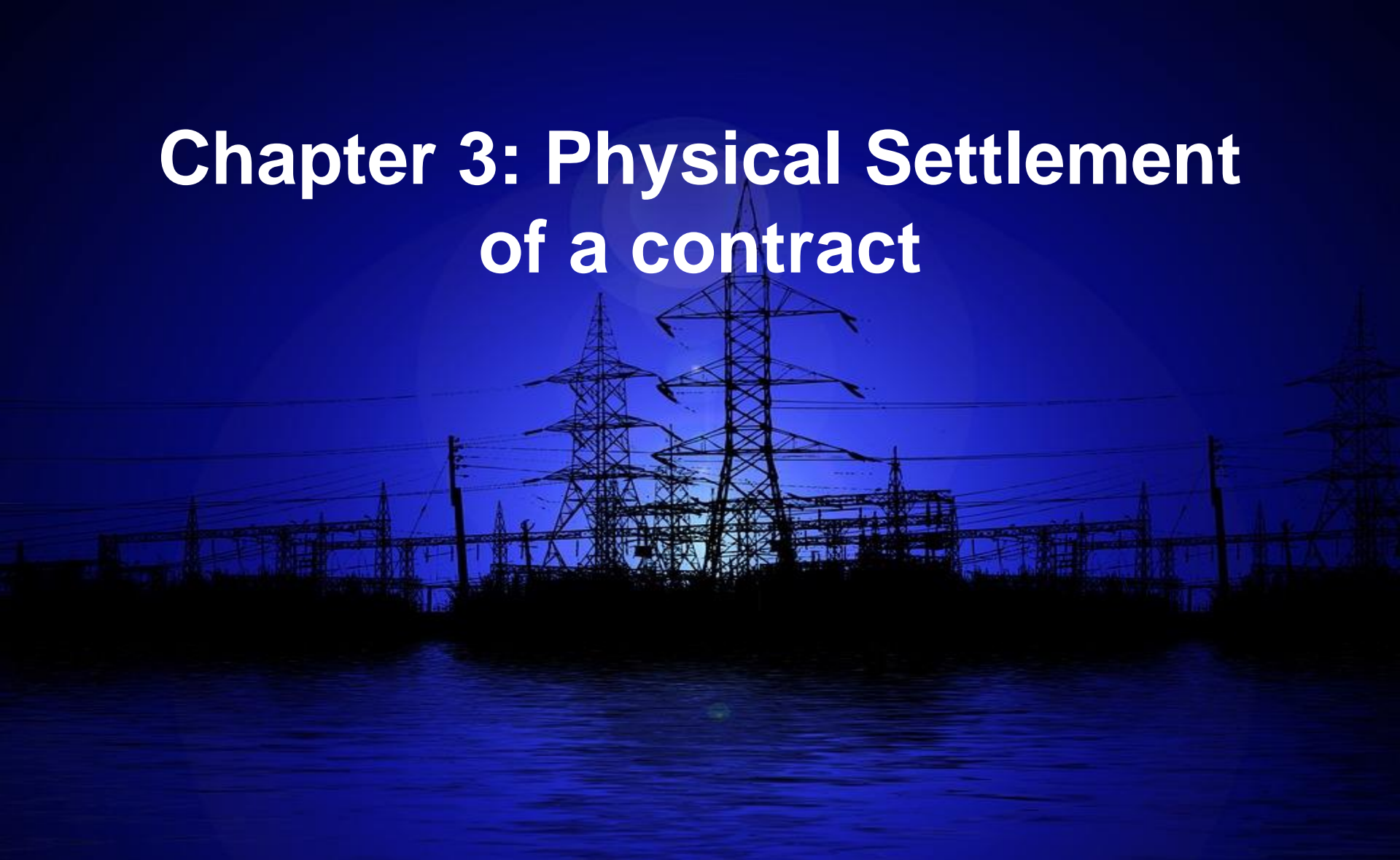
Trade which has been notified to ECC

Forms a binding contract for payment and delivery

Formation of a contract

- Once a trade is sent to ECC it becomes a contract
- Contracts go through two processes:
 - Physical settlement
 - Financial settlement
- Both processes run in parallel:
 - Kicked off automatically when contract is formed
 - No need for participant interaction
 - Cannot be stopped or delayed once contract is formed
- These two processes are discussed in more detail in the following chapters.

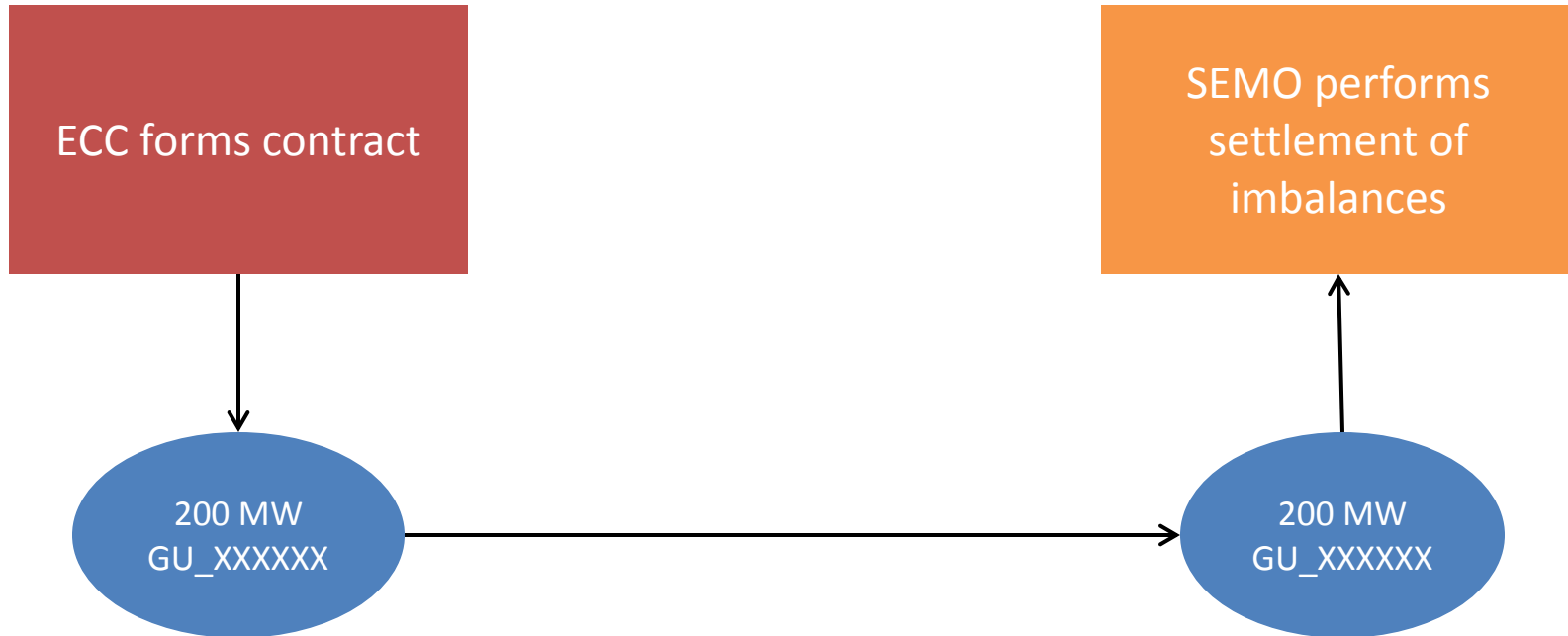
Chapter 3: Physical Settlement of a contract



Physical Settlement Overview

- ECC as the central counter party has role in physical settlement:
 - Covered by notifying SEMO of contracted quantity
 - Meets definition of physical settlement under CACM
- ECC notifies all contracts to SEMO:
 - Will be notified against the designated balancing market unit
 - This unit is responsible for delivery of energy
 - This unit is responsible for payment for non-delivery
- Settlement for imbalances handled by SEMO

Physical Settlement - Diagram



- ECC sends contract quantity to SEMO
- There is a direct mapping of values based on unit ID:
 - different companies may be responsible in each market segment
 - unit mapping is always the same one-for-one mapping
- Any required imbalance settlement is done by SEMO

Physical Settlement – Cross border values

- ECC also act as shipper for the I-SEM:
 - Body that is responsible for cross border flows from coupling
 - Will cover the day-ahead and intraday markets
- Submit cross border values for interconnectors:
 - Values submitted to the balancing market operator
 - Similar to values submitted for participants
- Ensures cross border trading is facilitated:
 - Important part of the coupling process
 - Facilitates the arrangements needed for European coupling

Chapter 4: Financial Settlement of a contract

Financial Settlement

- Trade values determined by SEMOpx:
 - Part of the auction process
 - Part of the continuous trading process
- All trade values are firm:
 - Once contract is struck values must be delivered
 - Price determined before contract is formed
 - No additional settlement variables are required
- ECC process trades sent by SEMOpx:
 - FX conversions and rounding performed by SEMOpx
 - ECC do not alter trade values to form a contract

Daily Booking Cut

- Booking cut determines when trades are settled:
 - Trades before the booking cut are settled that day
 - Trades after the booking cut are settled the following working day
- Booking cut occurs at 15:00 each working day
 - All contracts prior to the cut then entered into payment reports
 - Delivery date of the contract does not affect settlement
 - Multiple delivery dates may be covered by one cut (e.g. D and D+1)
- Payment reports issued following booking cut:
 - Outlines the payments for the following working day
 - Transfer of funds will occur each working morning

Booking Cut Example

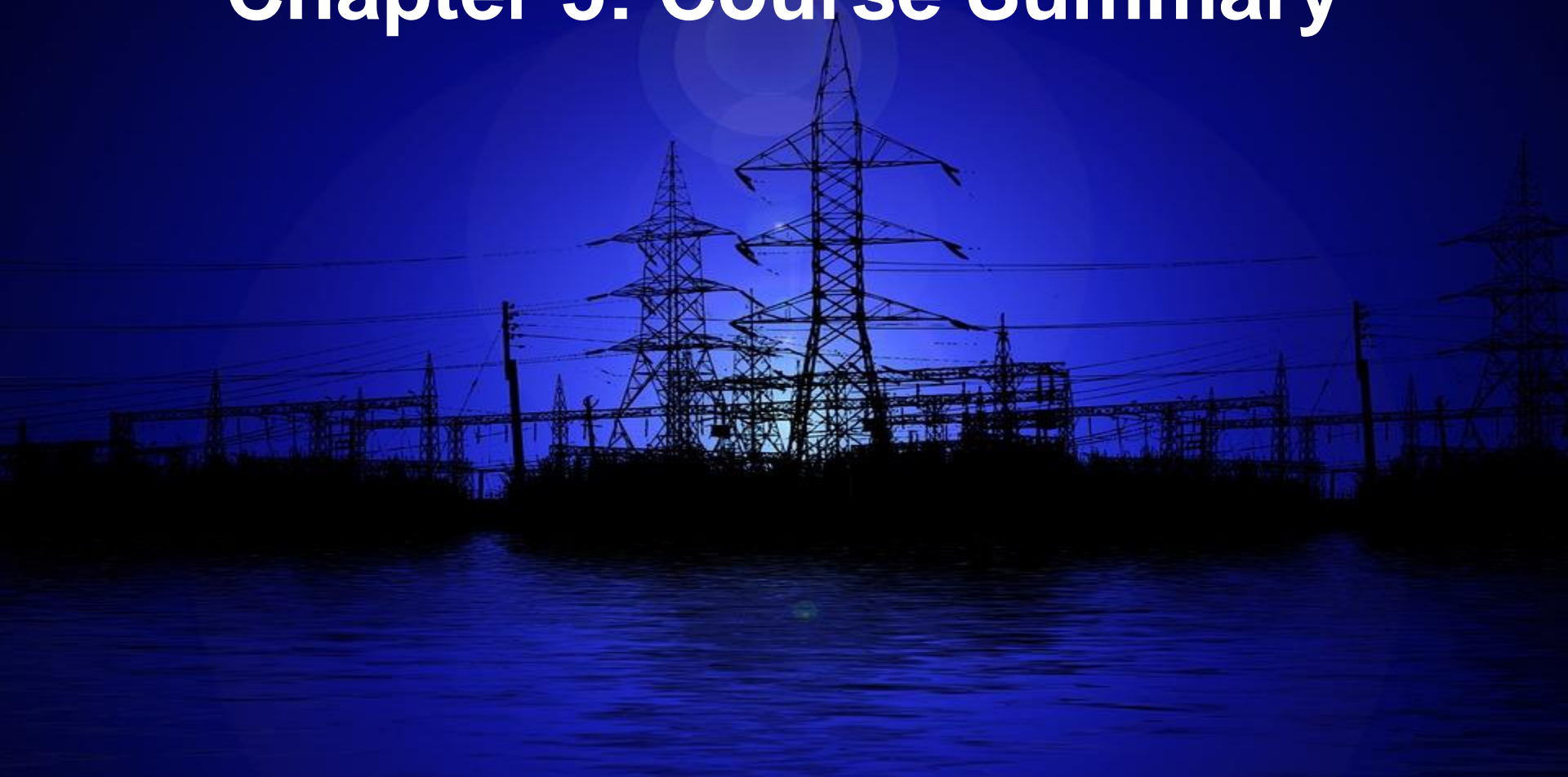


- The DAM trades are sent to ECC before the cut:
 - Included in that days payment report
- IDA1 trades are sent to ECC after the cut:
 - Included in the next payment report
- Trades included in different reports for the same delivery date:
 - Operational time of booking determines time of settlement

Financial Settlement – Cross Border Values

- ECC perform cross border financial settlement:
 - In role as the shipper
- Transfers of money between NEMOs from coupling:
 - E.g. transfer from SEMOpX to Nord Pool UK
 - Transfers dictated by cross border flows from coupling
 - Relevant to DAM, IDA1 and IDA2
 - Ensures NEMOs always have sufficient funds to pay customers
- Required to facilitate coupling:
 - Action only between NEMOs
 - Background action for market participants

Chapter 5: Course Summary



Useful Links

For more information please visit the following links:

- ECC Clearing House Conditions
 - <https://www.ecc.de/ecc-en/about-ecc/rules/clearing-conditions>
- SEMOpx rules and operating procedures:
 - <http://www.sem-o.com/ISEM/Pages/SEMOpXRULESANDPROCEDURES.aspx>
- ECC webpage for invoicing:
 - <https://www.ecc.de/ecc-en/operations/invoicing>

Review of Learning Objectives

After completing self-learning and instructor-led training for this course, you should understand:

The daily activities of ECC for settlement



How contracts are formed by ECC



How contracts are settled financially and physically by ECC

