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# **Retail Settlement Process: RTP Recommendations**

Presentation to MDC

December 17, 1998

# Presentation Overview

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Process overview

Review of MDC policy recommendations

Overview of settlement process

Settlement calculations

- Processing IMO information
- Calculating the Net System Load Shape
- Adjusting for losses and unaccounted for energy
- Calculating settlement obligations

Settlement timeline

# Process Overview

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RTP charter was to implement MDC policy recommendations

RTP represented multiple stakeholders and included some MDC members

RTP spawned subpanels to develop draft recommendations

Today's recommendations were developed by Load Profiling & Settlements subpanel

Every subpanel recommendation was reviewed by the RTP and often modified

# Process Overview

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If the RTP felt that further policy direction was required, the issues were brought before the MDC (e.g., default supply, separation)

PHB facilitated meetings, provided technical input and wrote the report

**BOTTOM LINE:** Today's recommendations are the result of thousands of person-hours of effort by a group of stakeholders whose sole purpose was to implement MDC policy

# **MDC Policy Recommendations**

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LDC's must offer all customers the option of buying energy at the wholesale hourly spot price (R4-4)

Default supply equals a "smoothed" pass-through of the wholesale spot price (R4-3)

LDCs must unbundle energy from other charges (R4-6)

The energy portion of a bill must be calculated using measured hourly usage or estimated amount using a load profile (R4-5)

# **MDC Policy Recommendations**

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At a customer's request, LDCs must direct the bill to a competitive retailer (R4-10)

Rules must be developed to mitigate risk of payment default by retailers (R4-8)

LDCs must enter into good faith negotiations to support physical bilateral contracts with incremental costs paid for by retailers (R4-9, R4-11 and R4-12)

# Settlement Process Overview

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Policy recommendations bifurcate retail and wholesale settlement & make LDCs responsible for retail settlement

R3-1: All LDC's are responsible for

- determining financial obligations using the wholesale spot price and OEB determined tariffs for all end-use customers served directly by them and for all retailers serving customers
- collecting sufficient revenue to cover the cost of all regulated services

# Settlement Process Overview

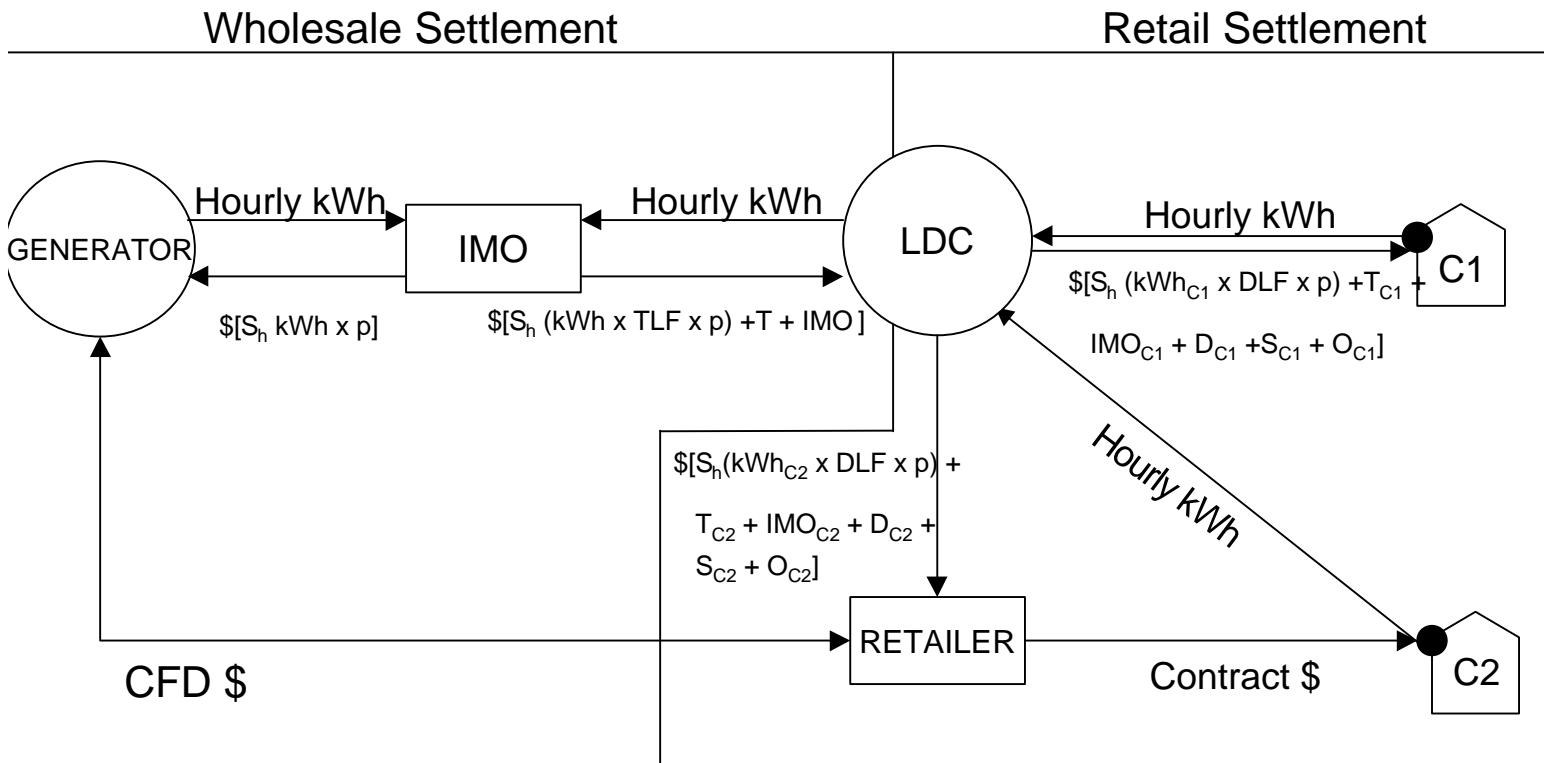
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R3-2: All LDCs must be able to:

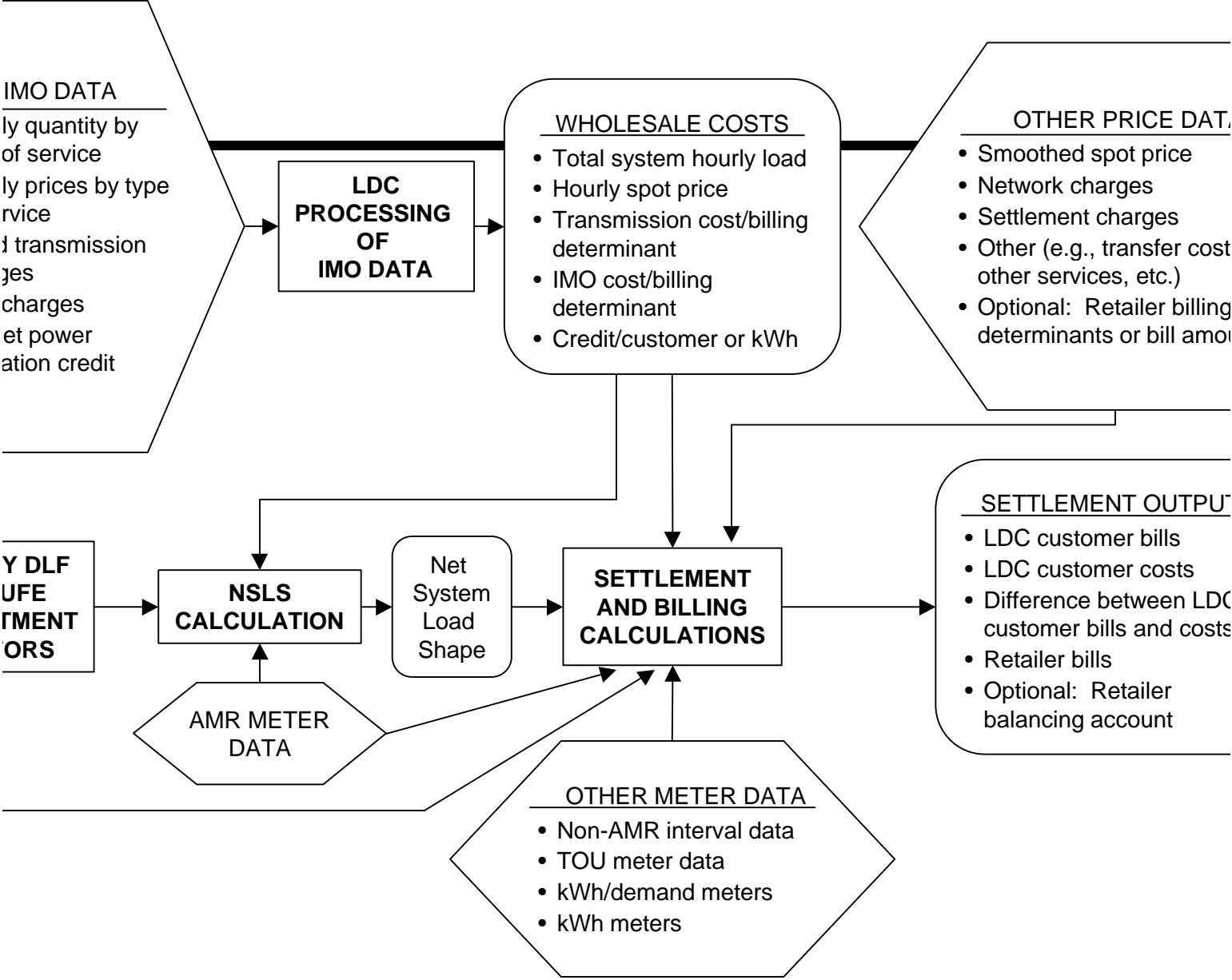
- Calculate electricity bills based on hourly wholesale spot prices
- Calculate bills based on smoothed spot-price and track differences for “true-up” purposes
- Send bills to and receive payment from retailers



# Settlement Information Flow



# Settlement Processing Flow



# Processing IMO Information

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On a daily basis, the IMO will provide data on

- Hourly MWh supplied or withdrawn based on GSF meters adjusted for transmission losses
- Aggregated quantity of ancillary services
- Hourly peak demand
- Relevant prices for each settlement calculation
- Applicable transmission service charges
- Total charges & prices for IMO administration
- GENCO market power rebates (periodically)

# Processing IMO Information

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LDCs must translate IMO information into billing determinants based on OEB tariff requirements (yet to be determined)

## Recommendation 3-3

- Keep wholesale spot price pure
- Allocate other charges based on cost determination proxies
- Do not allocate market power rebate based on customer-specific usage during periods when price exceeds the cap because it's too costly to do so--use a simple proxy

# Net System Load Shape

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The RTP qualitatively & quantitatively reviewed alternative load profiling methods

The RTP recommends the Net System Load Shape (NSLS) approach to profiling based on a variety of considerations:

- Analysis indicates that potential cross-subsidies across customer segments are comparable in magnitude to those that exist in traditional cost allocation methodologies
- Ease of implementation

# Net System Load Shape

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- Lower cost than alternatives
- Speed of implementation
- Limited regulatory burden
- Reflects local LDC conditions
- Automatically adjusts for profile drift

# Calculating the NSLS

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For any given period, acquire total system load data from IMO adjusted for embedded wholesale customers & generation

Acquire validated interval-metered data

Adjust all relevant data for line losses and unaccounted for energy

On an hourly basis, subtract interval-metered data from total system load

# Calculating the NSLS

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R3-4: Each LDC is responsible for calculating a NSLS profile for use in determining average electricity costs for all customers who do not have interval data recording meters.

R3-5: Average prices used to bill unmetered loads should be based on the NSLS rather than on any independently derived load shape estimate.



# Calculating the NSLS

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R3-13: All customers above 50kW with interval meters must have remote meter reading capability so data can enter into NSLS calculation

All customers below 50 kW with manually read interval meters will be excluded from the NSLS calculation but will be allowed to have their bills calculated based on interval data. OEB should monitor penetration of manually read meters and revise standards if aggregate loads are large

# **Distribution Losses and UFE**

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R3-6: Distribution loss factors (DLF) & unaccounted for energy (UFE) estimates should be developed for each LDC

R3-7: The OEB should approve two or more methods, varying in accuracy and complexity for estimating DLFs and UFEs. Estimates based on proper implementation of an approved method will be accepted by the OEB (subject to audit).

# Distribution Losses and UFE

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R3-8: At least one approved method should allow estimates to vary with load and voltage levels (e.g., different estimates for customers served at subtransmission, primary & secondary voltages)

R3-10: Wholesale loads connected to an LDC system should have the same loss and UFE adjustments applied to them as do retail loads of similar size and location.

# Distribution Losses and UFE

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R3-9: Adjustments for losses and UFE should NOT be based on contemporaneous reconciliation to total system loads. DLF & UFE estimates should be adjusted annually or less frequently. Historical “true-ups” should not be billed.

- Reconciliation requires all meters to be read
- Reconciliation could delay final settlement for up to a year
- Small residual error (+/-) can be allocated to the wires business

# Settlement Calculations

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The specific calculations that each LDC must perform for the spot-price pass through, default supply, network charges and other costs are yet to be determined by the OEB

It was not part of the RTPs charter to provide detailed tariff recommendations. General principles are outlined in R3-3

A subpanel recommendation to treat default supply as an equal billing plan, smoothing price & quantity, was rejected by the RTP

# Settlement Calculations

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R3-11: If the OEB determines that T&D charges should be allocated based on peak demand, the NSLS should not be used as a proxy for estimating individual customer peak demand. (Errors could be quite large.)

R3-12: When allocating costs to customers & retailers, TOU meters should be treated as kWh meters

- Incremental cost of special treatment not justified for current small number of TOU meters
- Want to encourage interval meters

# Billing Options

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R3-14: All LDCs must

- Allow retailers to act as consolidated billing agents for all customer charges
- Offer a split-bill option where an LDC issues the “wires” bill directly to an end-use customer and a retailer bills for electricity

LDC’s should not be required to bill on behalf of retailers, but they must make a good faith effort to provide such services if retailers cover all costs of doing so

# Billing Options

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The OEB will need to provide further guidance regarding what constitutes a “good faith effort” both for billing and for support of physical bilateral trading



# Prudential Requirements

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R3-15: The RTP recommends that:

- A working group be established under OEB direction to develop a workable, competitively neutral, standardized approach to retailer prudential requirements
- Prudential requirements vary with credit worthiness & magnitude of potential loss
- Options be examined that reduce the high transaction costs associated with each retailer establishing separate security arrangements with multiple LDCs

# Settlement Timeline

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R3-16: LDCs should be allowed to establish their own settlement timelines consistent with normal meter reading, billing and other business practices

Payment timing for retailers should be the same as those of the customers they serve

- Payment timing for residential or other low-use customers may differ from large customers
- Retailers should not be treated as large customers, but only as composites of the customers they serve

# Settlement Timeline

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- R3-17: LDCs should be allowed to implement a two-stage settlement process
- Stage-one based on estimated meter readings
  - Stage-two based on actual meter readings
  - Two consecutive missed reads should not be allowed
  - If a second read is missed, retailers may choose to treat the second estimated value as final
  - The OEB should consider approving a common estimation methodology to be used by all LDCs

# Transition Activities

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There are a number of key issues that must be addressed in the near future by the OEB and/or others:

- Affirm key MDC recommendations
- Develop wholesale and retail rate structure requirements
- Decide what information must be provided on bills
- Develop default supply calculation methodology
- Develop two or more DLF/UFE methodologies

# Transition Activities

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- Determine how embedded generation should be priced
- Determine whether a common bill estimation methodology should be developed and, if so, approve such a methodology
- Establish a working group on prudential requirements that will develop recommendations to the OEB
- Define “good faith effort” for optional services
- Organize a technical advisory process