

Itron

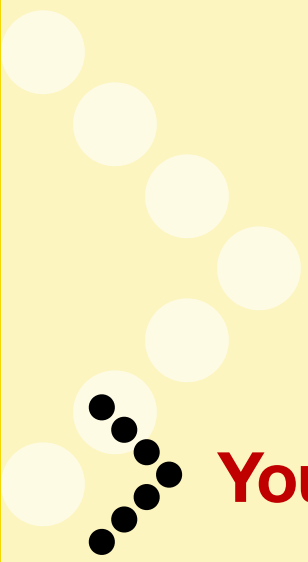
Knowledge to Shape Your Future



The utility of the future

reaching new heights

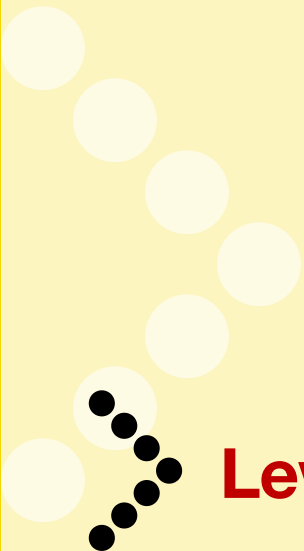




**You have the vital information
to transform your business.**

Yet you're not maximizing its value.





Leveraging a key asset you already have

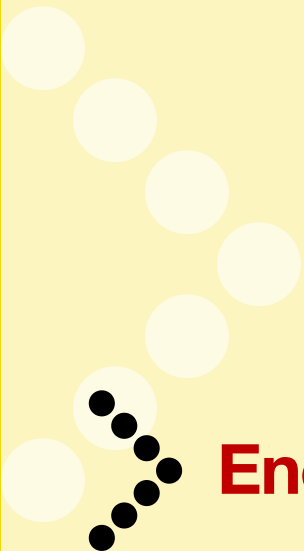
Meter data ... it is the essence of your business.

It tells you:

- > how much energy or water is being used
- > where it is being used
- > when it is being used
- > who is using it

What you do with that data makes all the difference!





Energy intelligence



Meter data is energy intelligence.

When applied across your delivery system, workforce, customers and other market participants, it helps you...

- > drive out cost
- > optimize revenue and profits
- > share information
- > increase efficiency





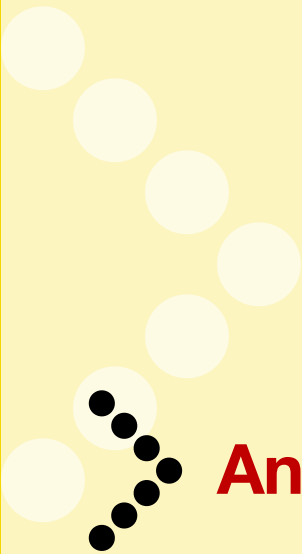
Applying energy intelligence

Sharing knowledge across boundaries gets
the right information, to the right people,
at the right time, in the right form.

Use it to...

- > optimize delivery
- > optimize use
- > optimize operations
- > optimize market operation





An analogy – scanners

Then:

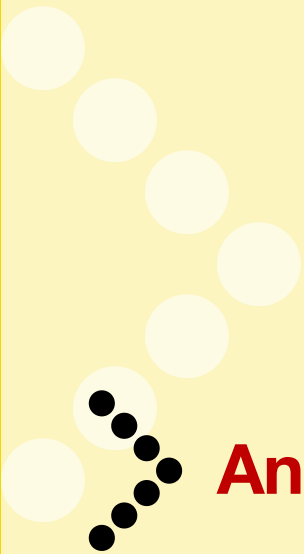
- > eliminate entry errors

Now:

- > transformation of supply chain management
- > integral to customer relationship management
- > self-scanning – labor reduction, customer convenience
- > integration with credit/debit – cashless transaction, revenue assurance

Result: business process transformation





An analogy – meter data



Then:

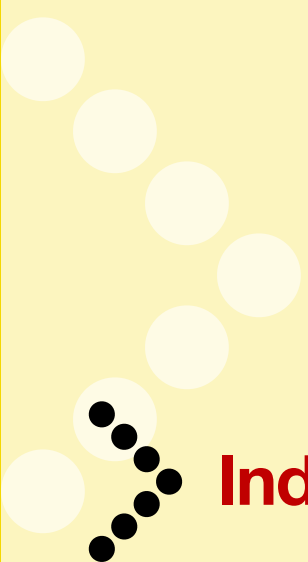
- > measure for monthly billing

Now:

- > cost and labor reductions
- > energy management – customer, infrastructure, expense management
- > asset optimization – capacity, performance and cost
- > design precision – capital avoidance, reliable delivery system
- > forecasting – commodity and asset management

Result: business process transformation



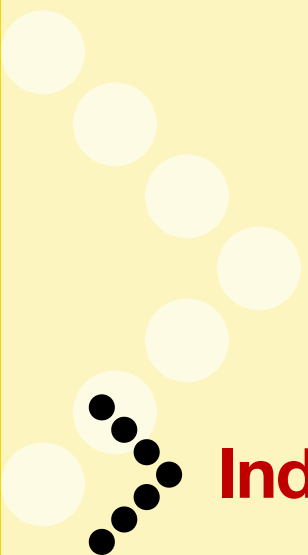


Industry outlook

“Load data warehousing is the most important emerging strategic initiative for utilities.”

The Meta Group



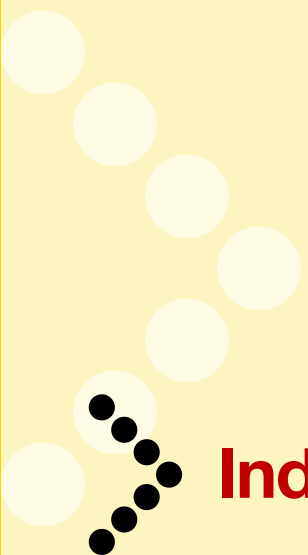


Industry outlook

“Successful energy companies will focus on interval meter data as an enterprise resource that provides value to both internal and external users.”

The Meta Group



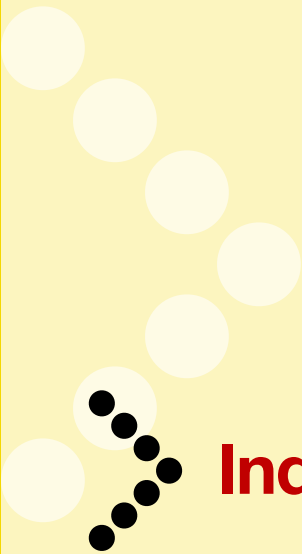


Industry outlook

*“In addition to being a base for revenue processing, **information about energy consumption is critical for commodity/asset management optimization.**”*

The Meta Group



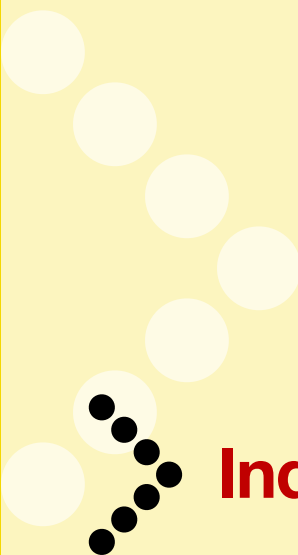


Industry outlook

*“ ... early adopters of this technology will gain a significant advantage ... **by leveraging the value of the data** ... and by influencing regulatory decisions and standards at the earliest stages.”*

Cambridge Energy Research Association



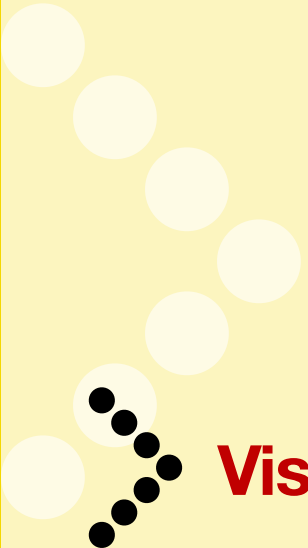


Industry outlook

“T&D optimization strategy will leverage Advanced Metering Technology Solutions... enabling many value propositions for enhanced and new business functions.”

IBM





Vision

Planning Engineering Construction

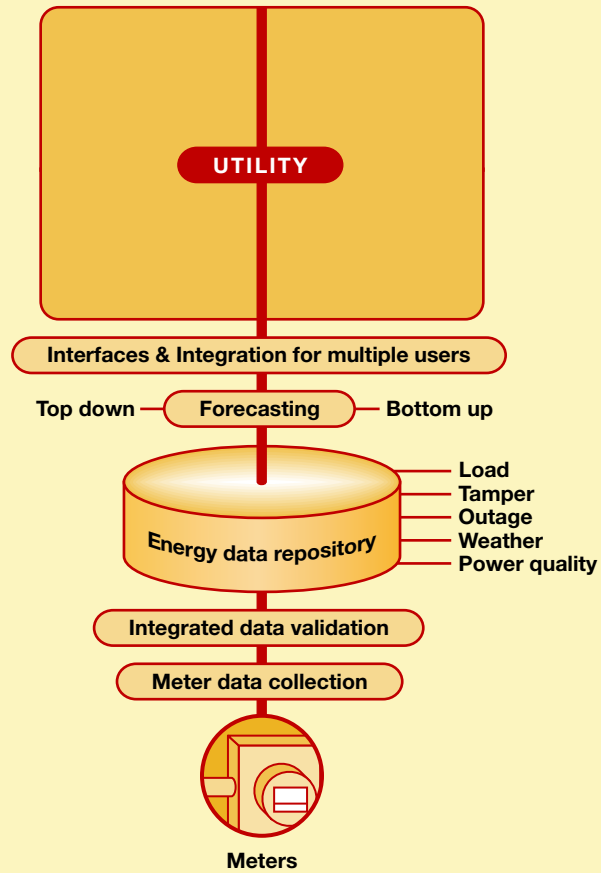
Asset management Maintenance

Operations Field service Energy delivery

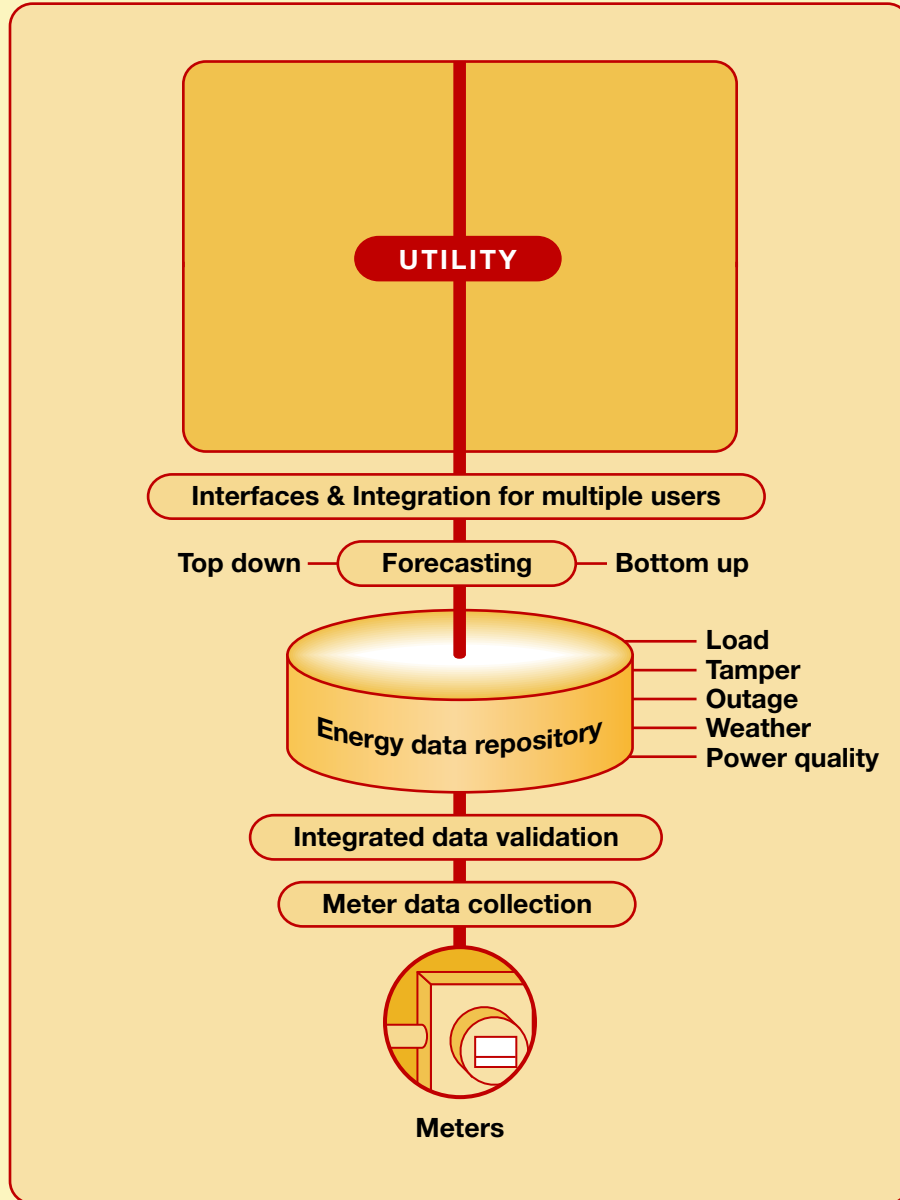
Trouble call Customer service Call center

Billing Rates Marketing Regulatory

Optimize meter data collection



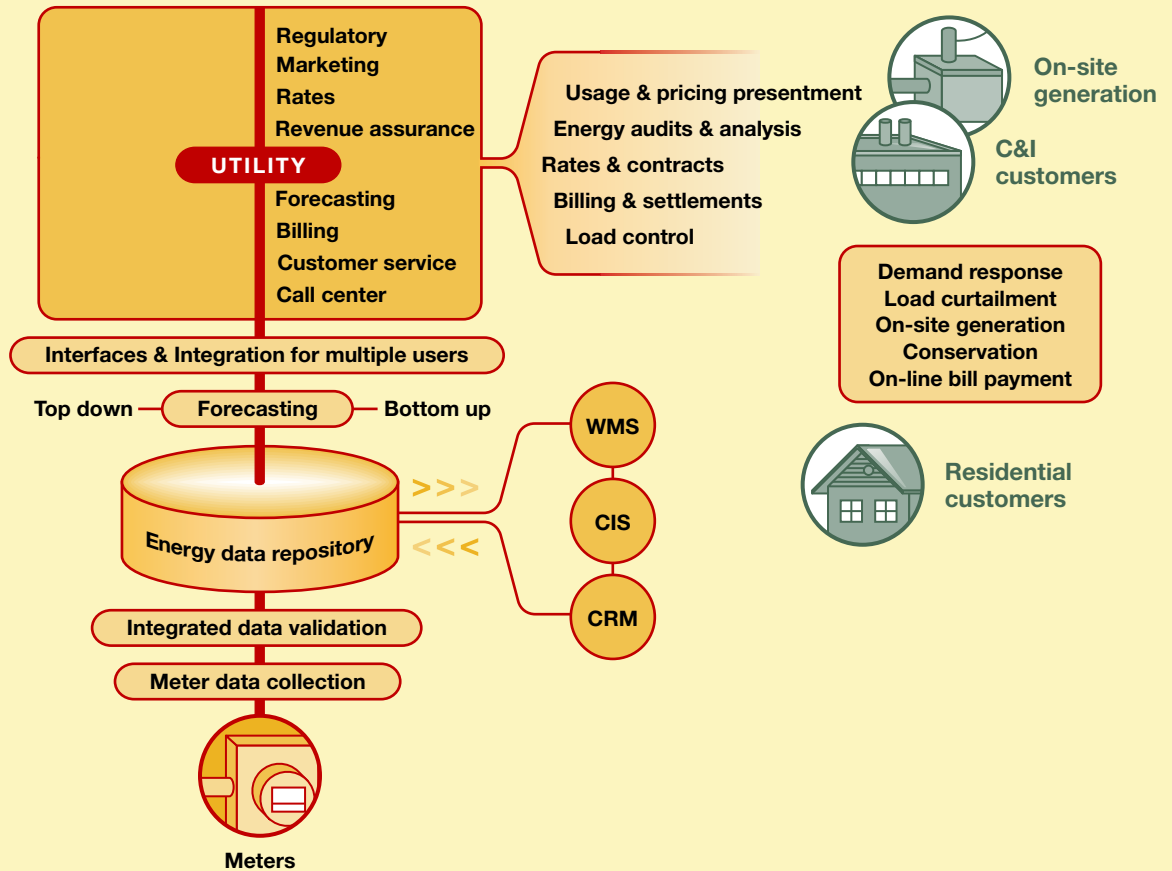
Optimize meter data collection



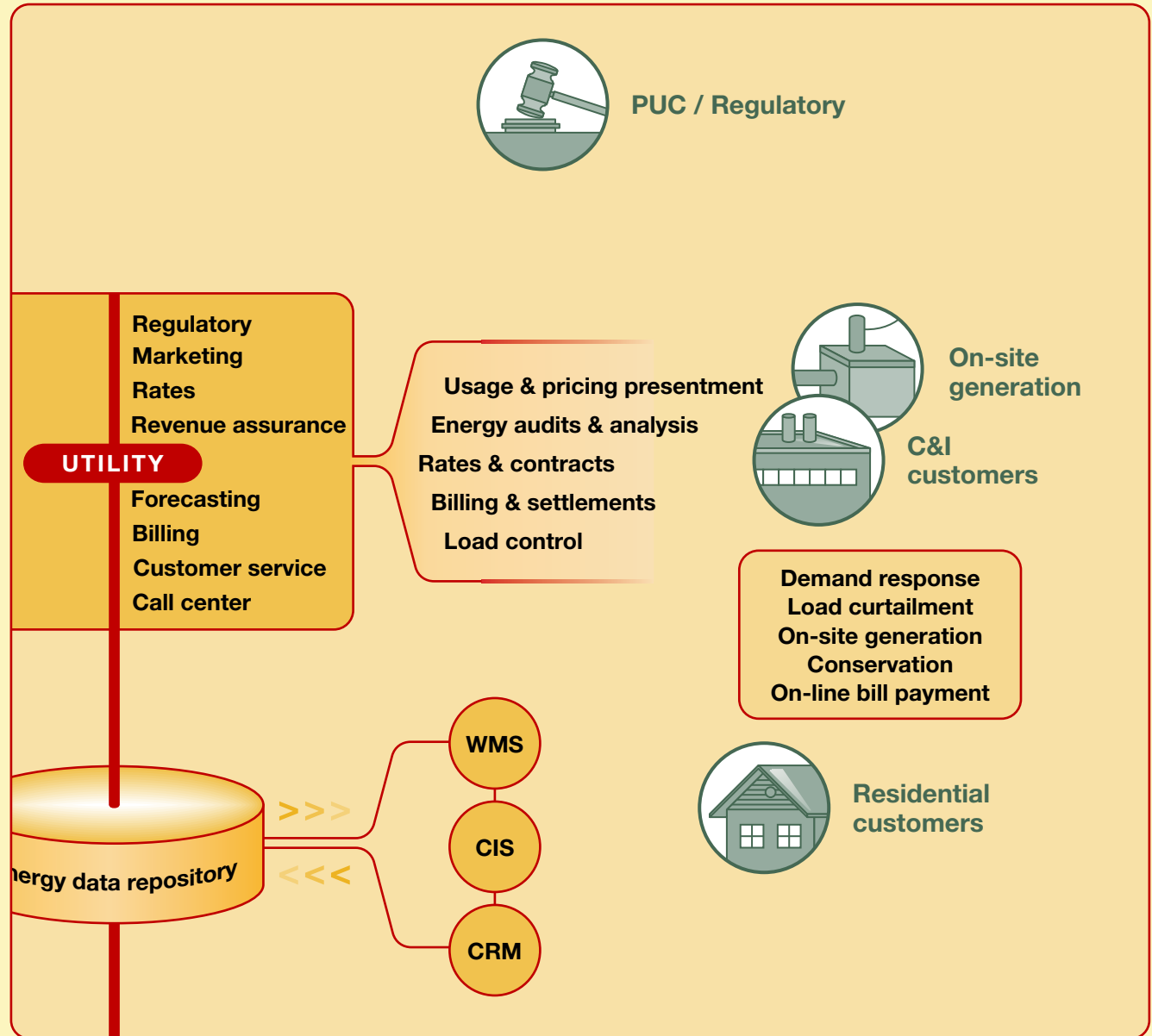
Optimize energy & water use



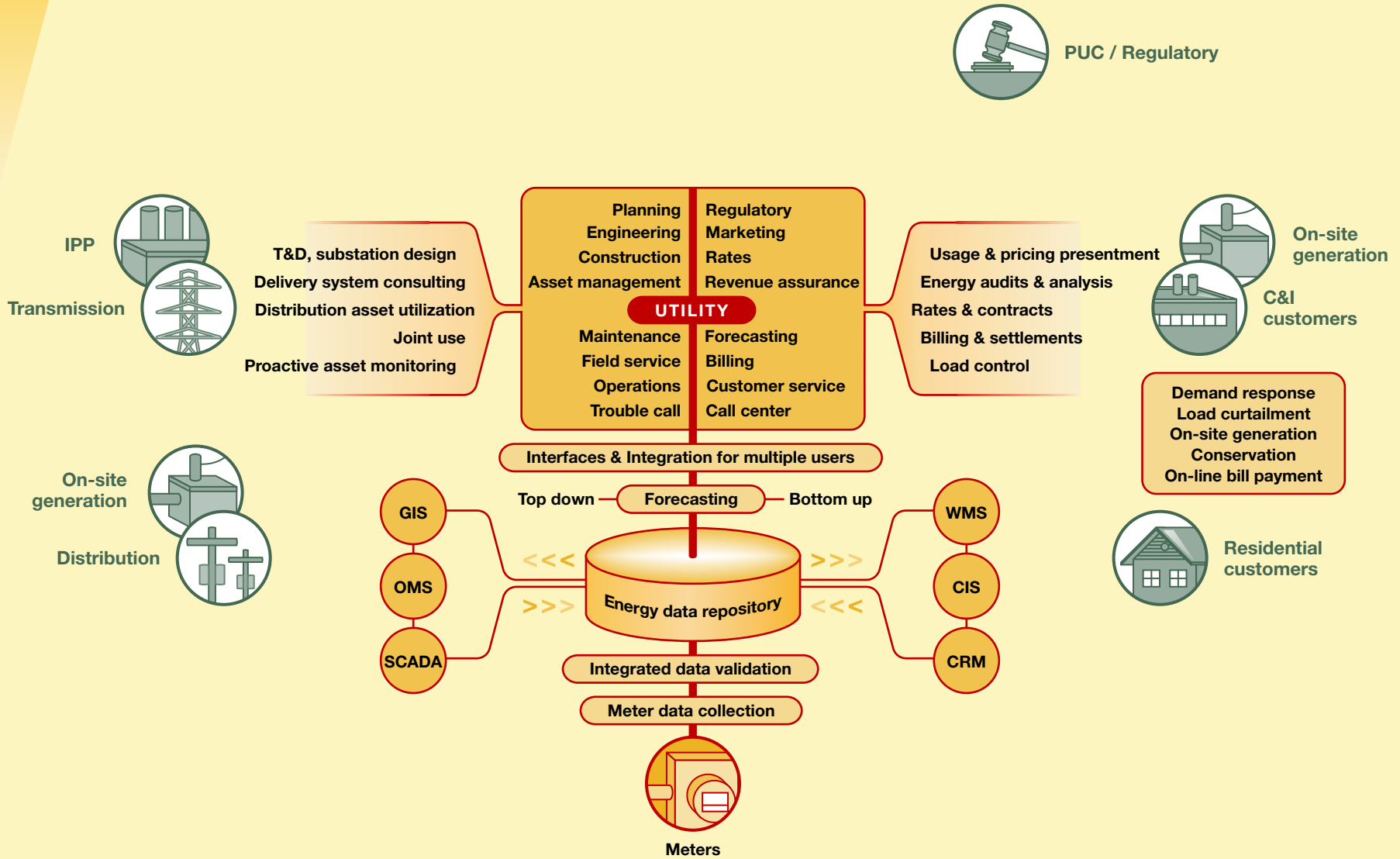
PUC / Regulatory



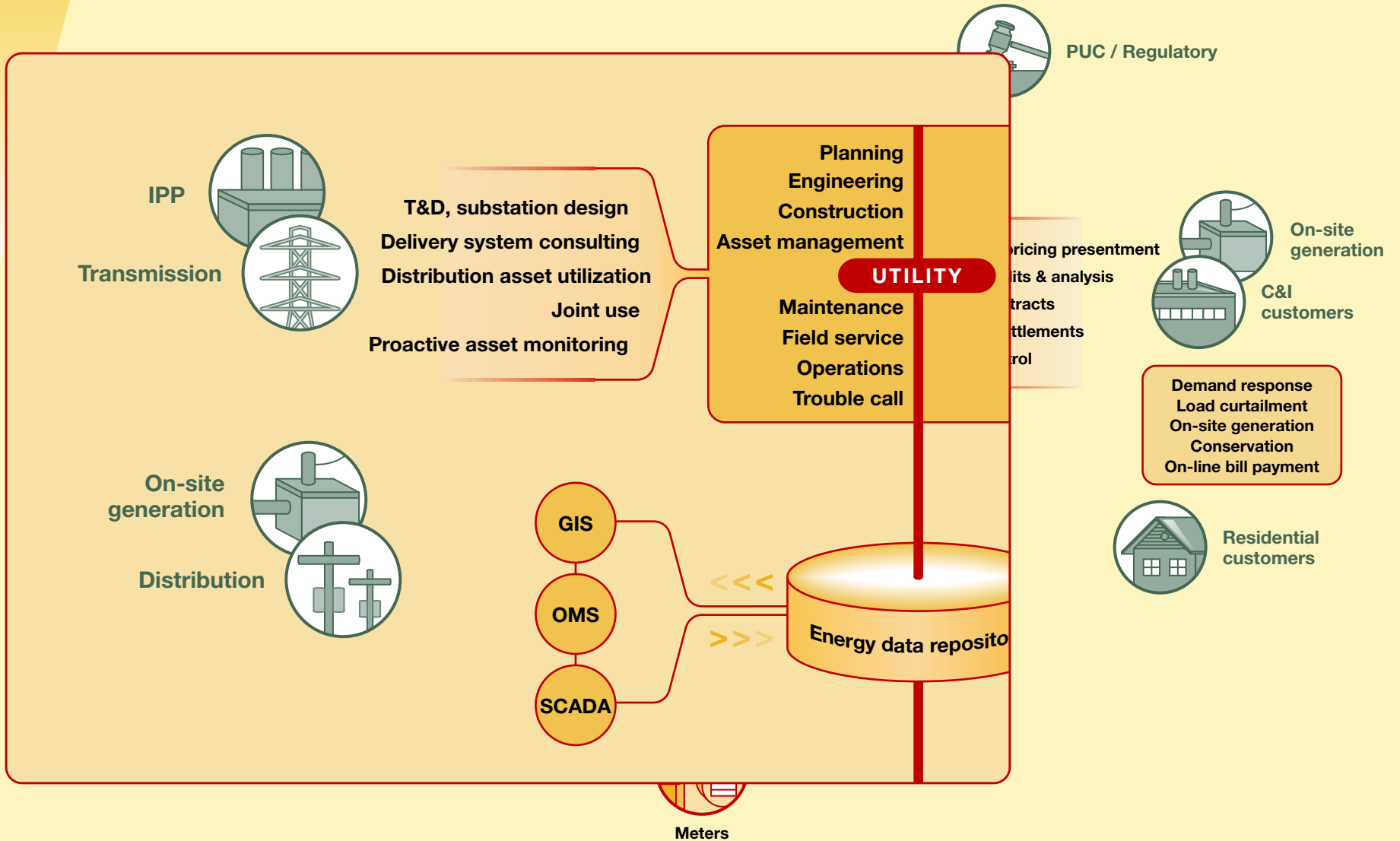
Optimize energy & water use



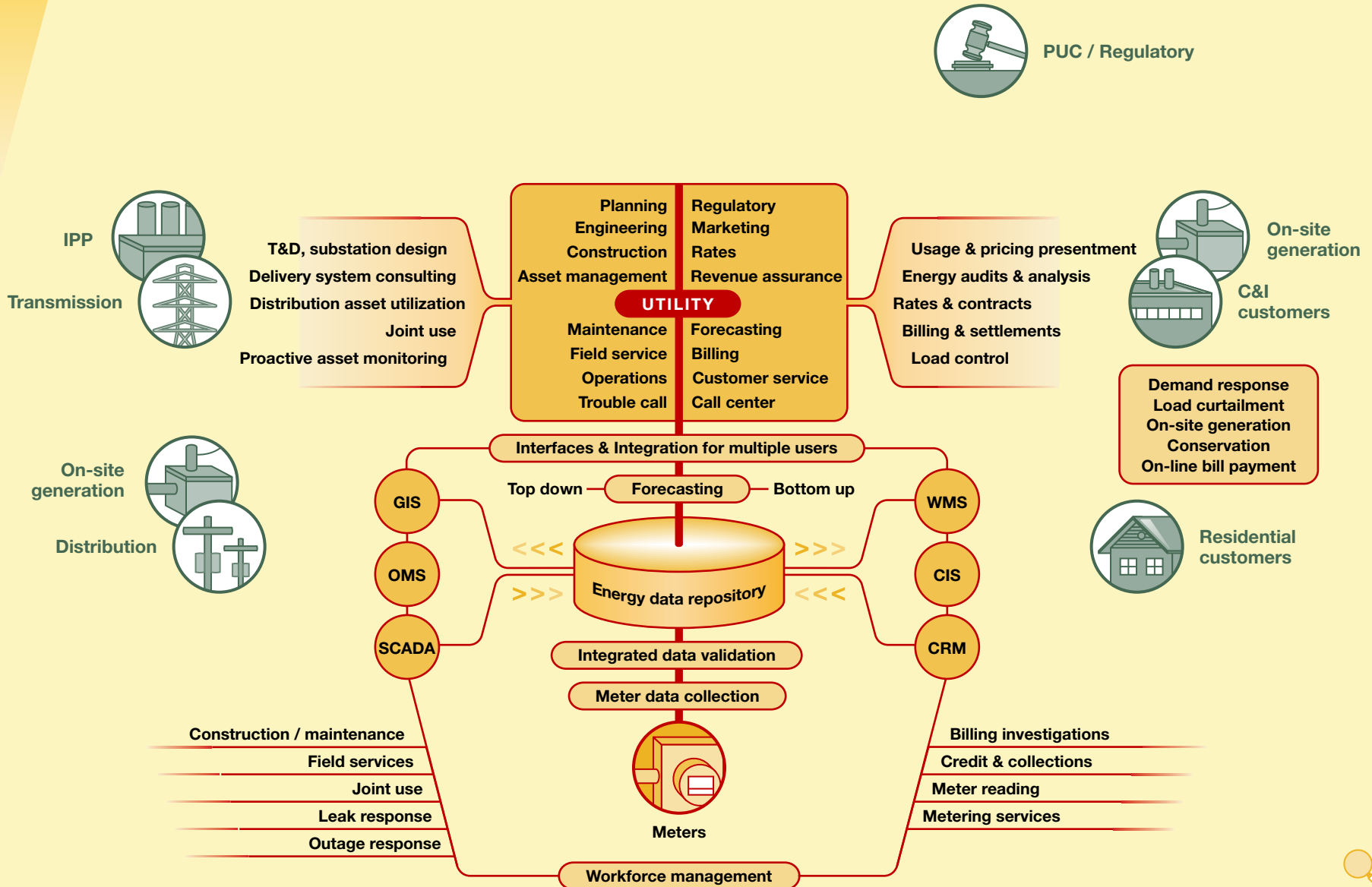
Optimize energy & water delivery



Optimize energy & water delivery



Optimize operations



Optimize operations



PUC / Regulatory



IPP

T&D, substation design

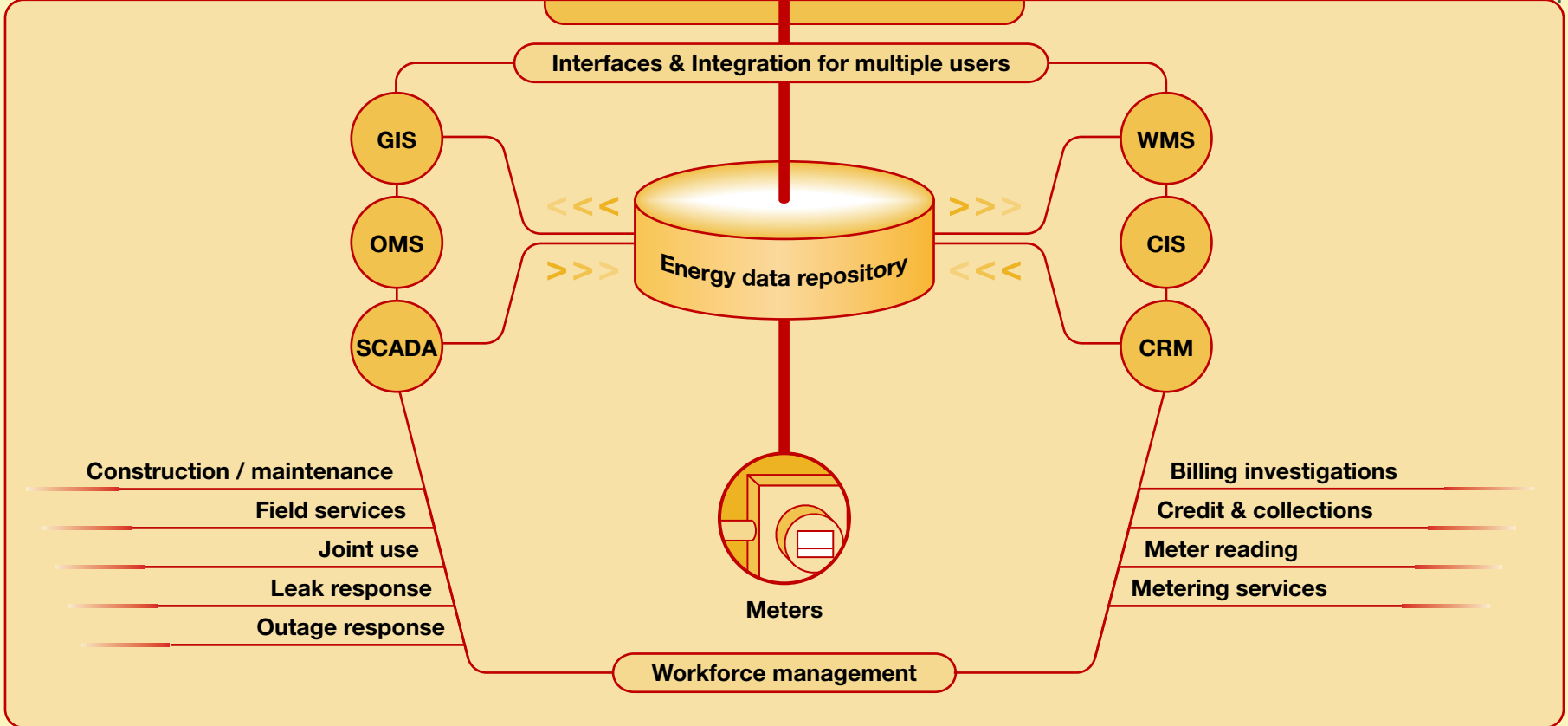
Planning
Engineering
Construction

Regulatory
Marketing
Rates

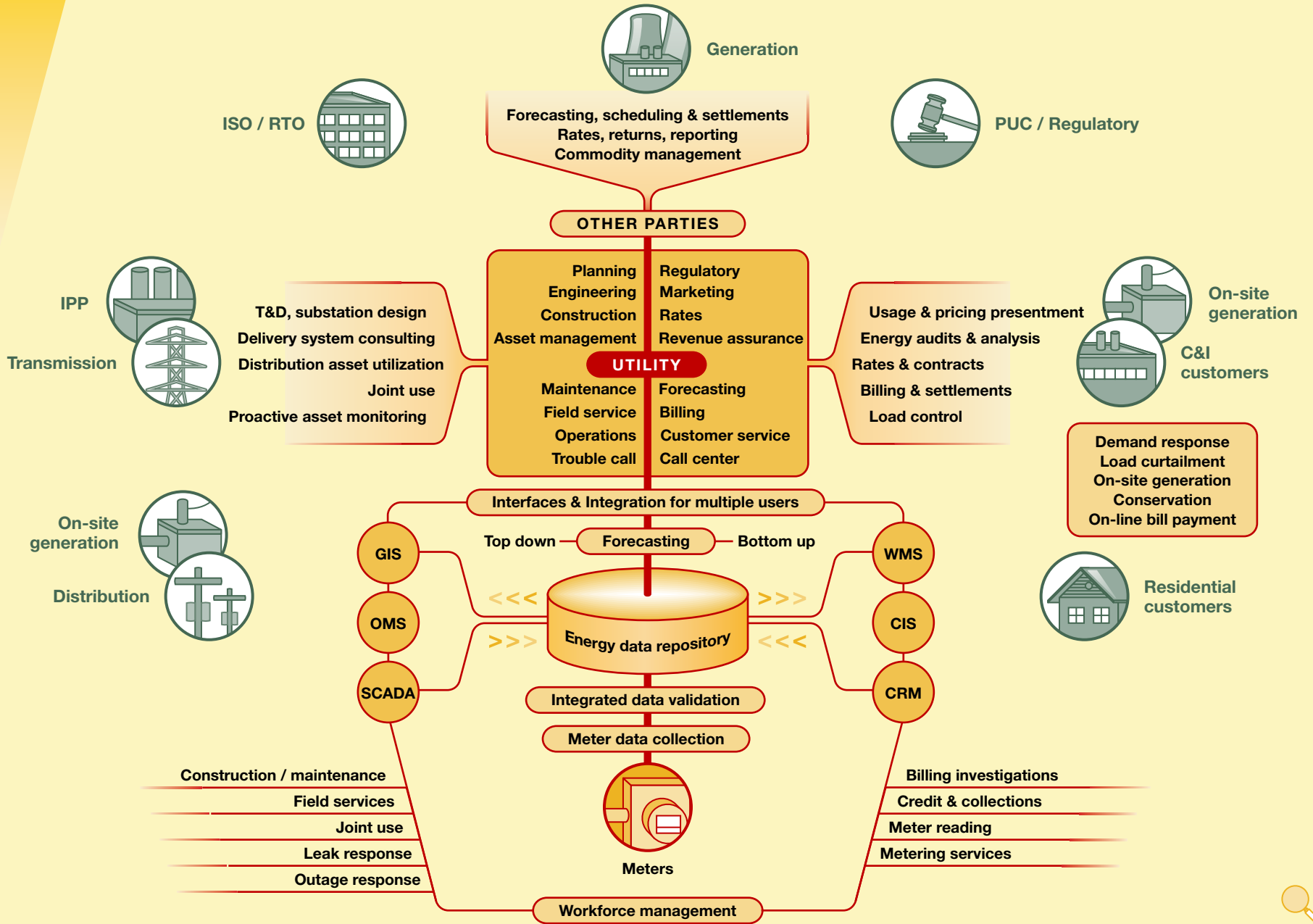
Usage & pricing presentation



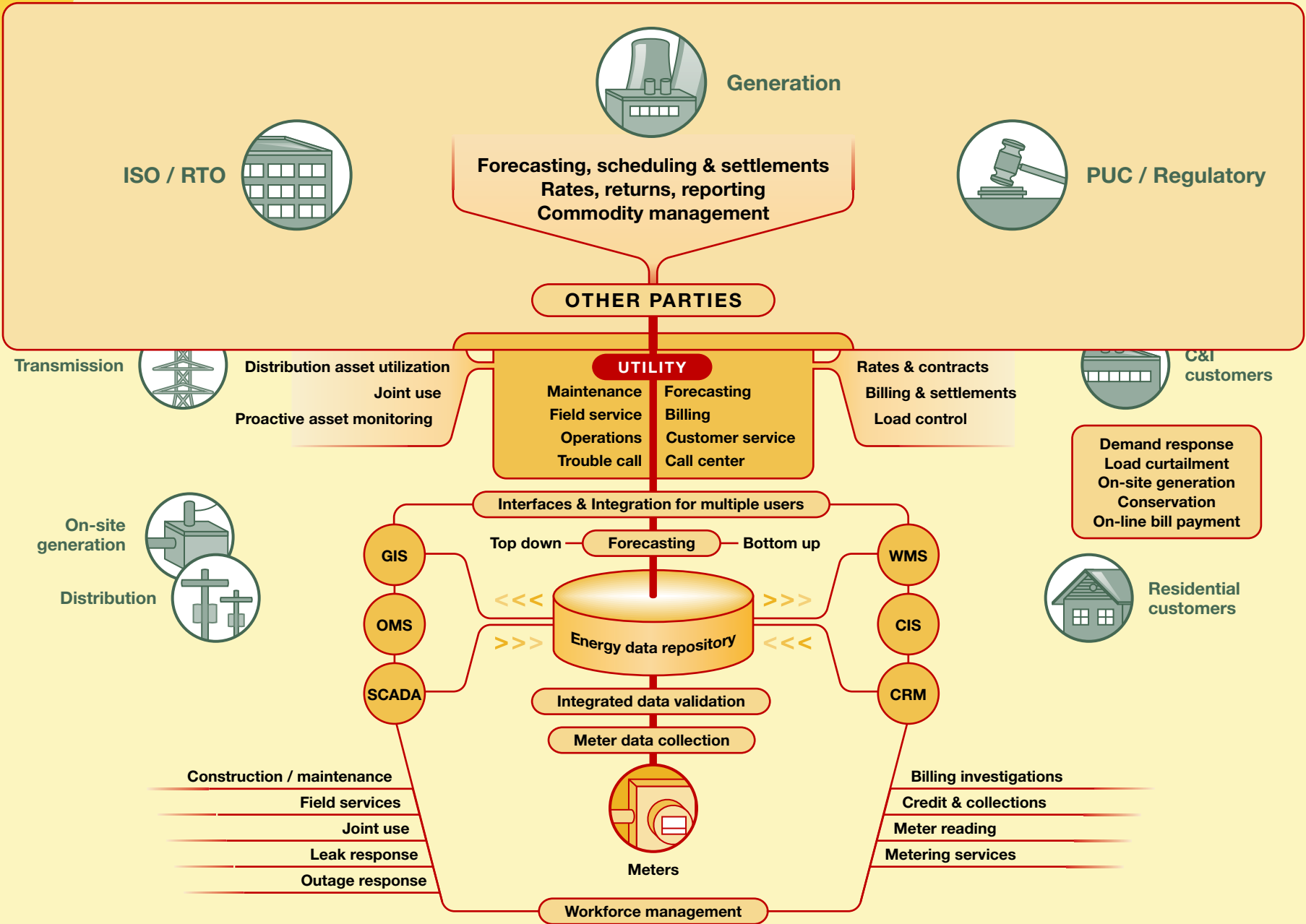
On-site generation



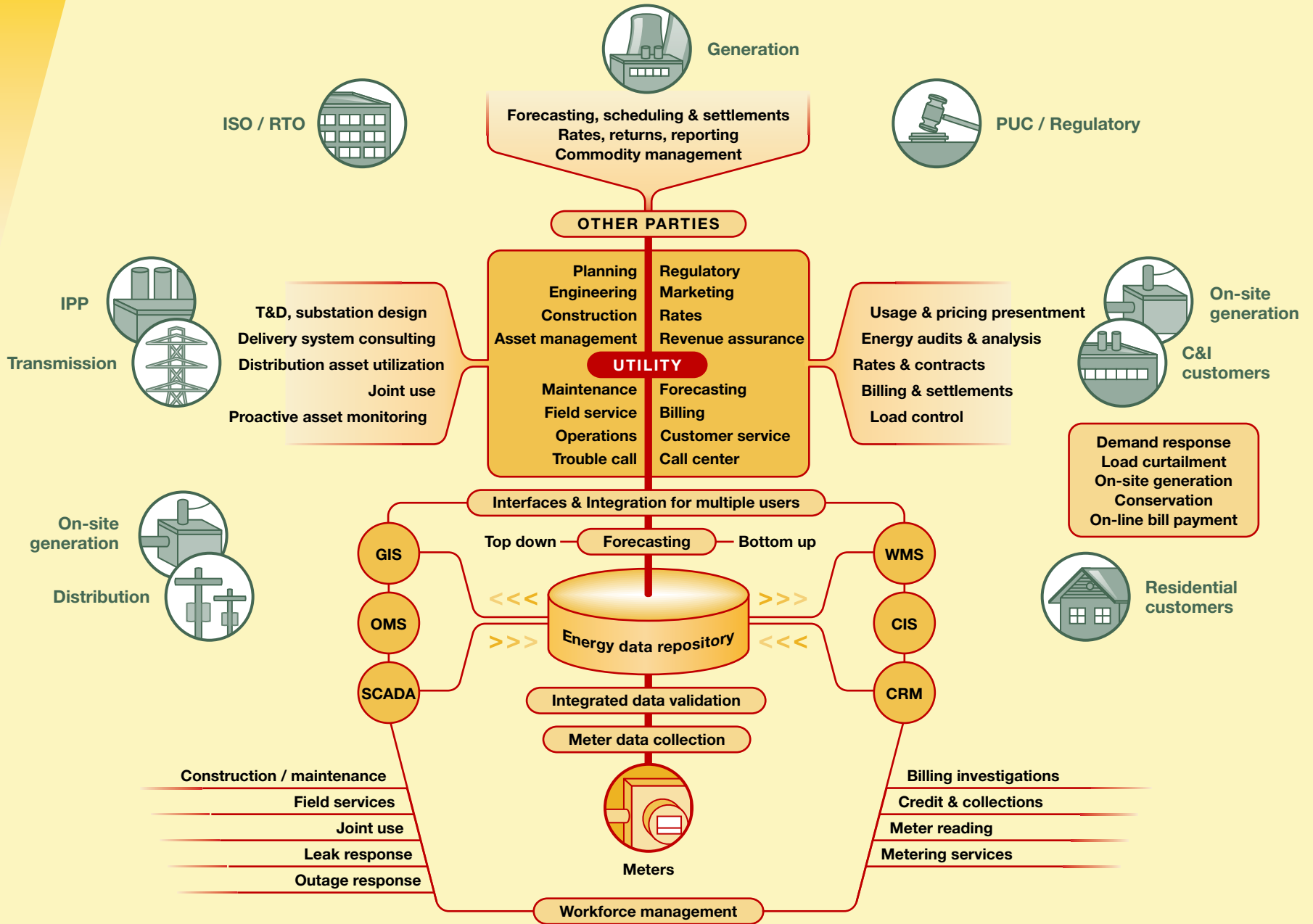
Optimize market operation



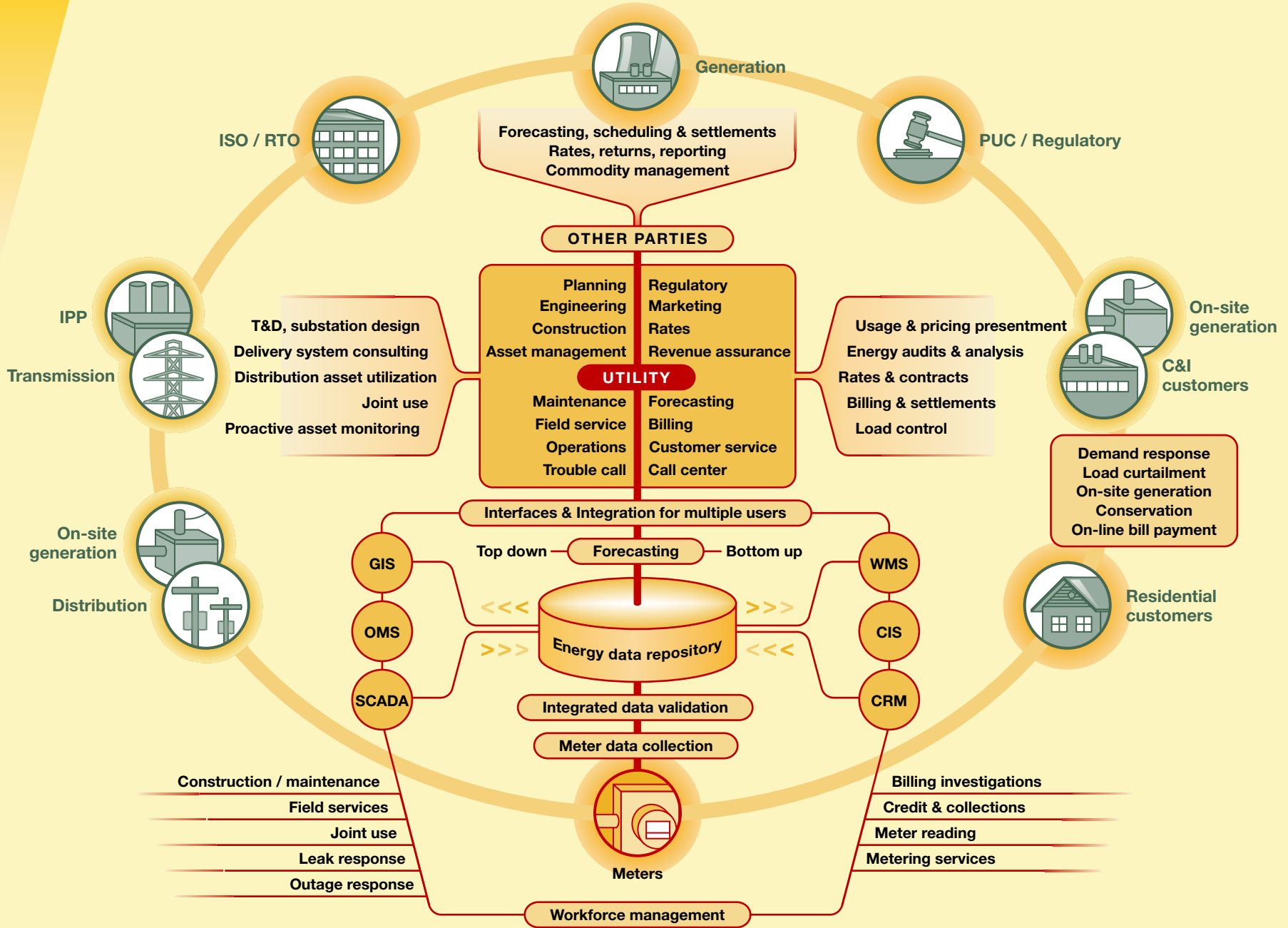
Optimize market operation

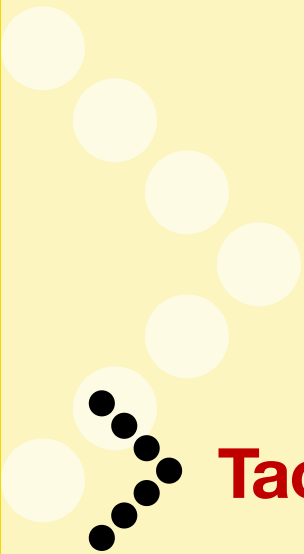


Utility of the future



Utility of the future





Tactical ... strategic ... transformational

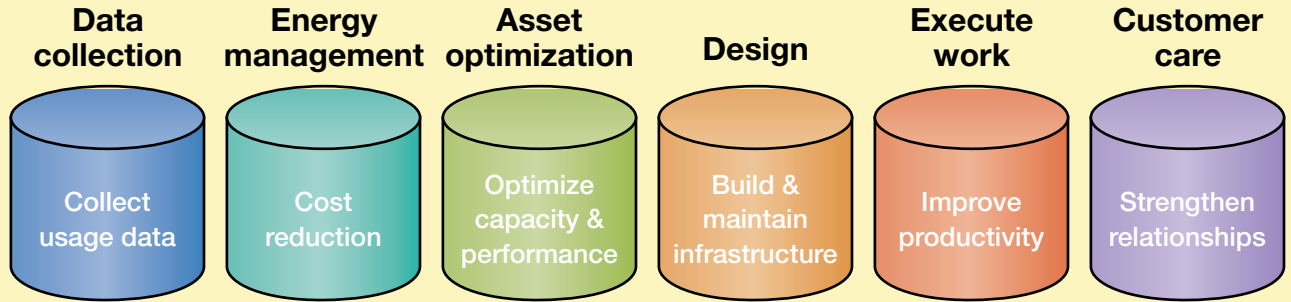
Where do you want to be?





Tactical to transformation

> objective

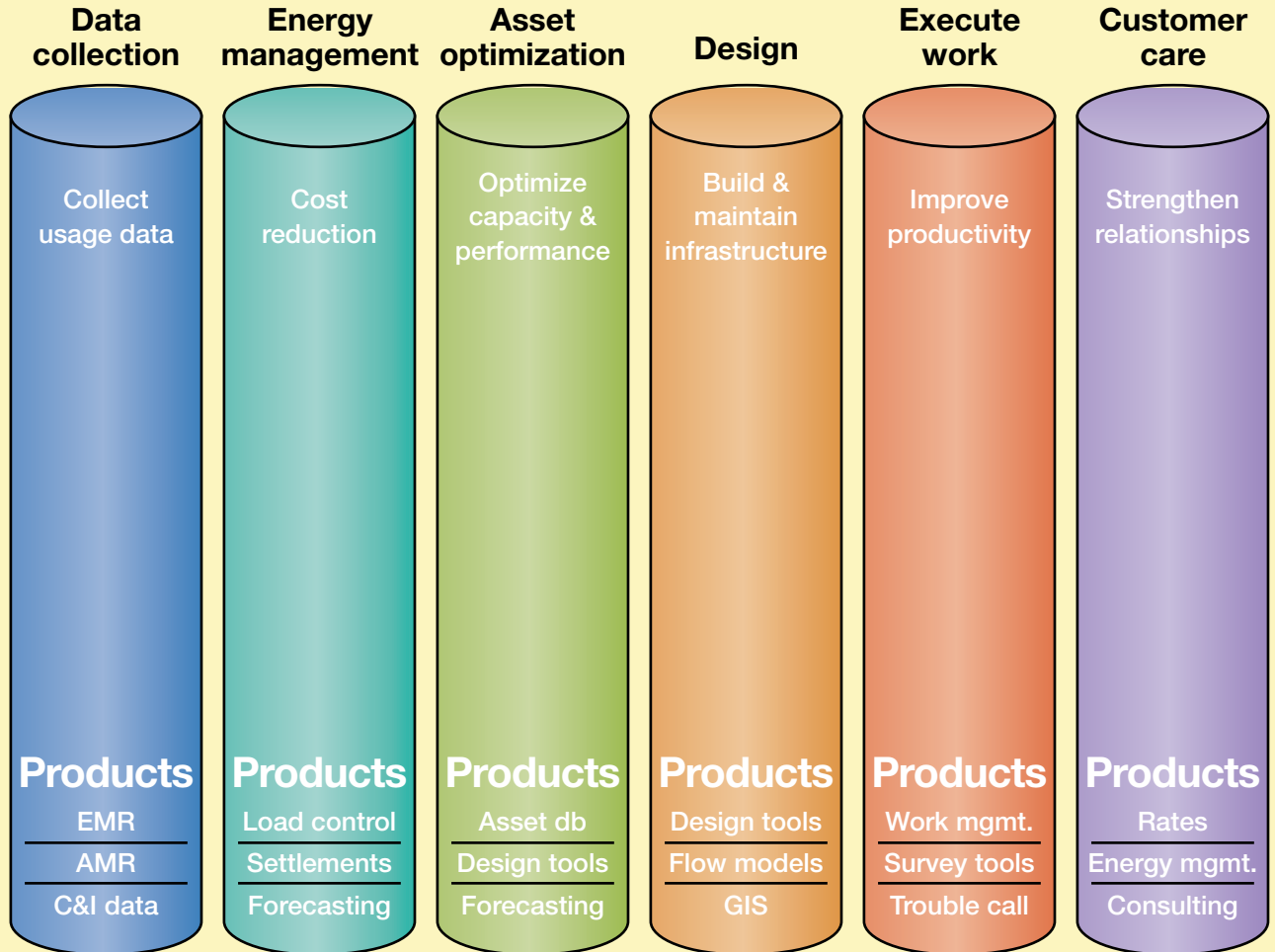




Tactical to transformation

> objective

> tactical



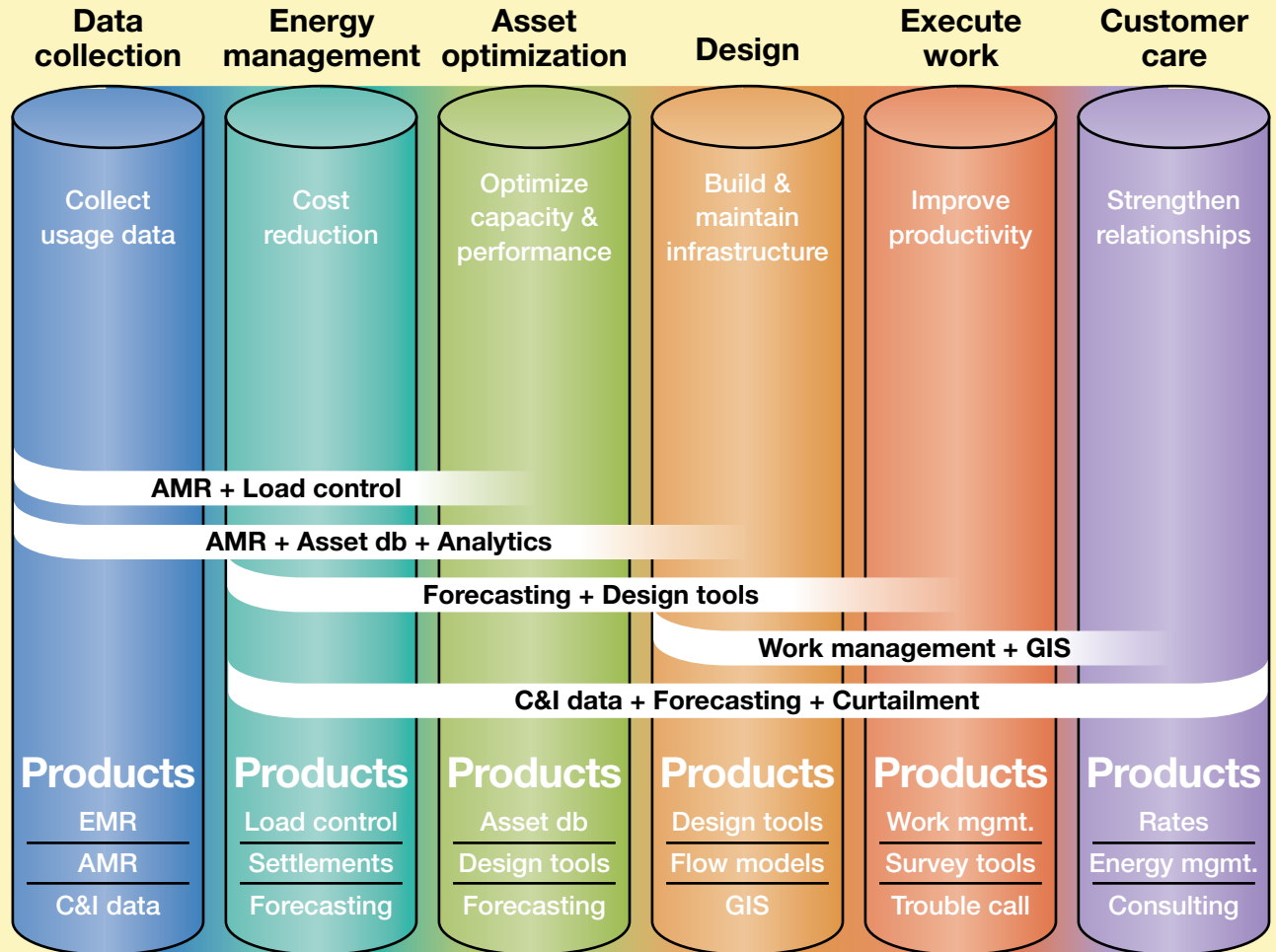


Tactical to transformation

> objective

> strategic

> tactical





Tactical to transformation

> objective

Data collection

Energy management

Asset optimization

Design

Execute work

Customer care

Collect usage data

Cost reduction

Optimize capacity & performance

Build & maintain infrastructure

Improve productivity

Strengthen relationships

> transformational

Access to actionable information across boundaries

Incremental technology automation steps + integration with legacy systems + business process optimization

> strategic

AMR + Load control

AMR + Asset db + Analytics

Forecasting + Design tools

Work management + GIS

C&I data + Forecasting + Curtailment

> tactical

Products

Products

Products

Products

Products

Products

EMR

Load control

Asset db

Design tools

Work mgmt.

Rates

AMR

Settlements

Design tools

Flow models

Survey tools

Energy mgmt.

C&I data

Forecasting

Forecasting

GIS

Trouble call

Consulting



Why make the climb?

- > leverage every resource
 - people
 - assets
 - technology
- > optimize revenue and profits
- > increase payoff of existing investments
- > drive out costs
- > increase efficiency
- > ensure reliable delivery
- > connect with customers
- > meet regulatory requirements
- > conserve capital or reduce O&M
- > deliver shareholder value
- > deliver on resource conservation initiatives





Minimizing risk



- > choose a portfolio of interoperable business process optimization solutions across operations
- > choose a partner experienced in transforming meter data to load data and applying it to your other applications – further payoff on legacy systems
- > choose your integration initiatives and take others off your desk to free capital resources for other things
- > choose solutions that can be deployed incrementally – not just meter reading – that enable you to move toward transformation over time
- > choose an open approach – enabling you to use what you have or choose other solutions
 - low risk
 - enables upside



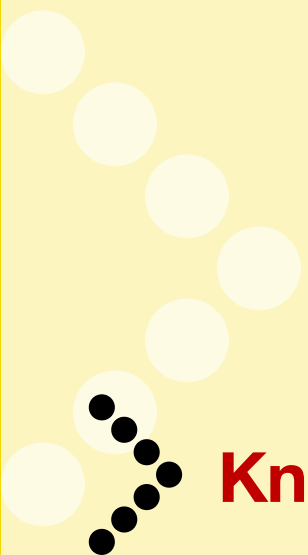
Itron

Knowledge to Shape Your Future



Thank you

where do we go from here?




Know more ...

**Utility of
the future**

Solutions

Opportunity analysis

 ***Road map***

About Itron

Next step



Road map

Show me the transformation!

> **Meter data collection**

Energy management

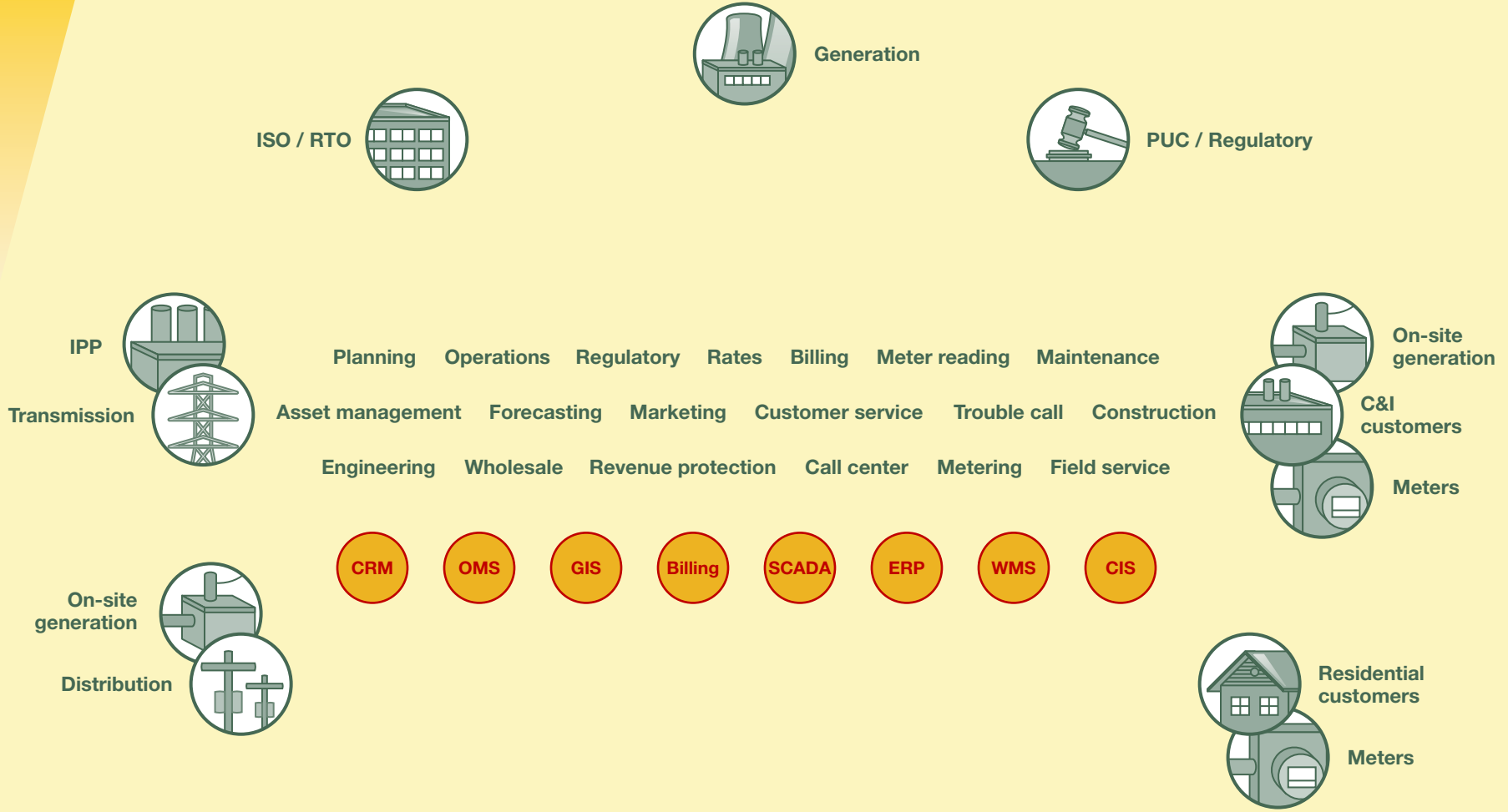
Asset optimization

Delivery system design

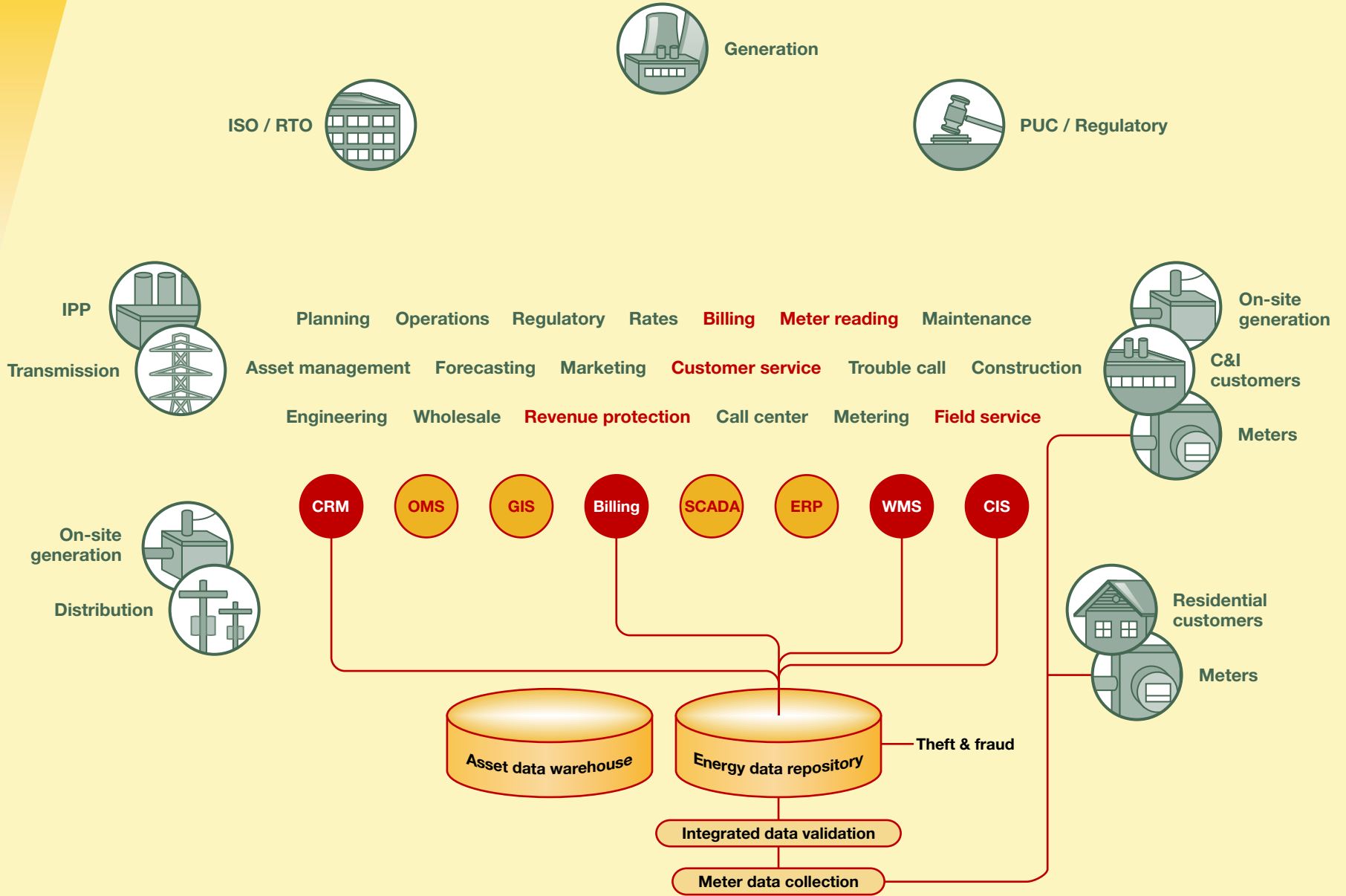
Workforce management

Customer care

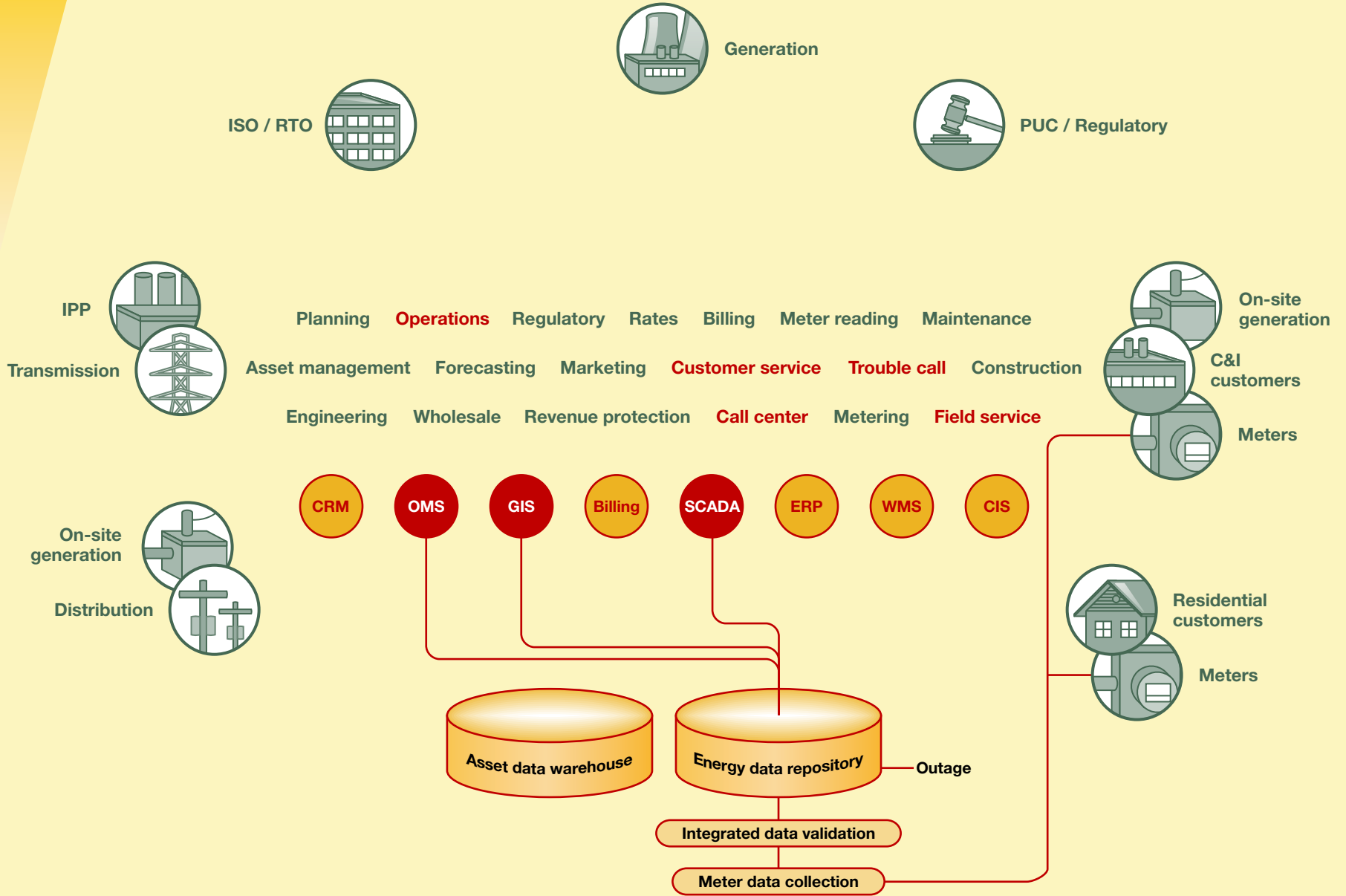




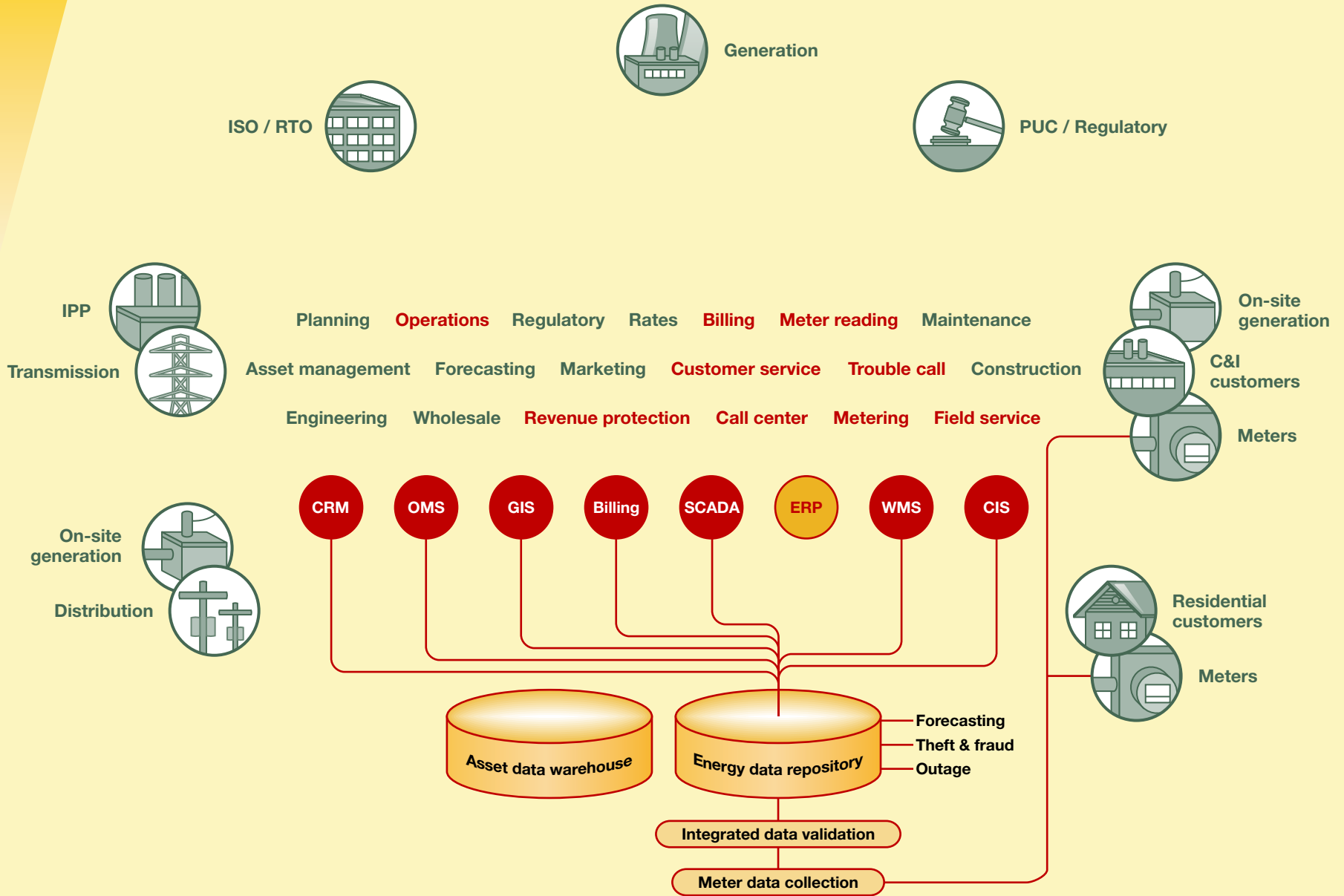
Meter data collection



Meter data collection

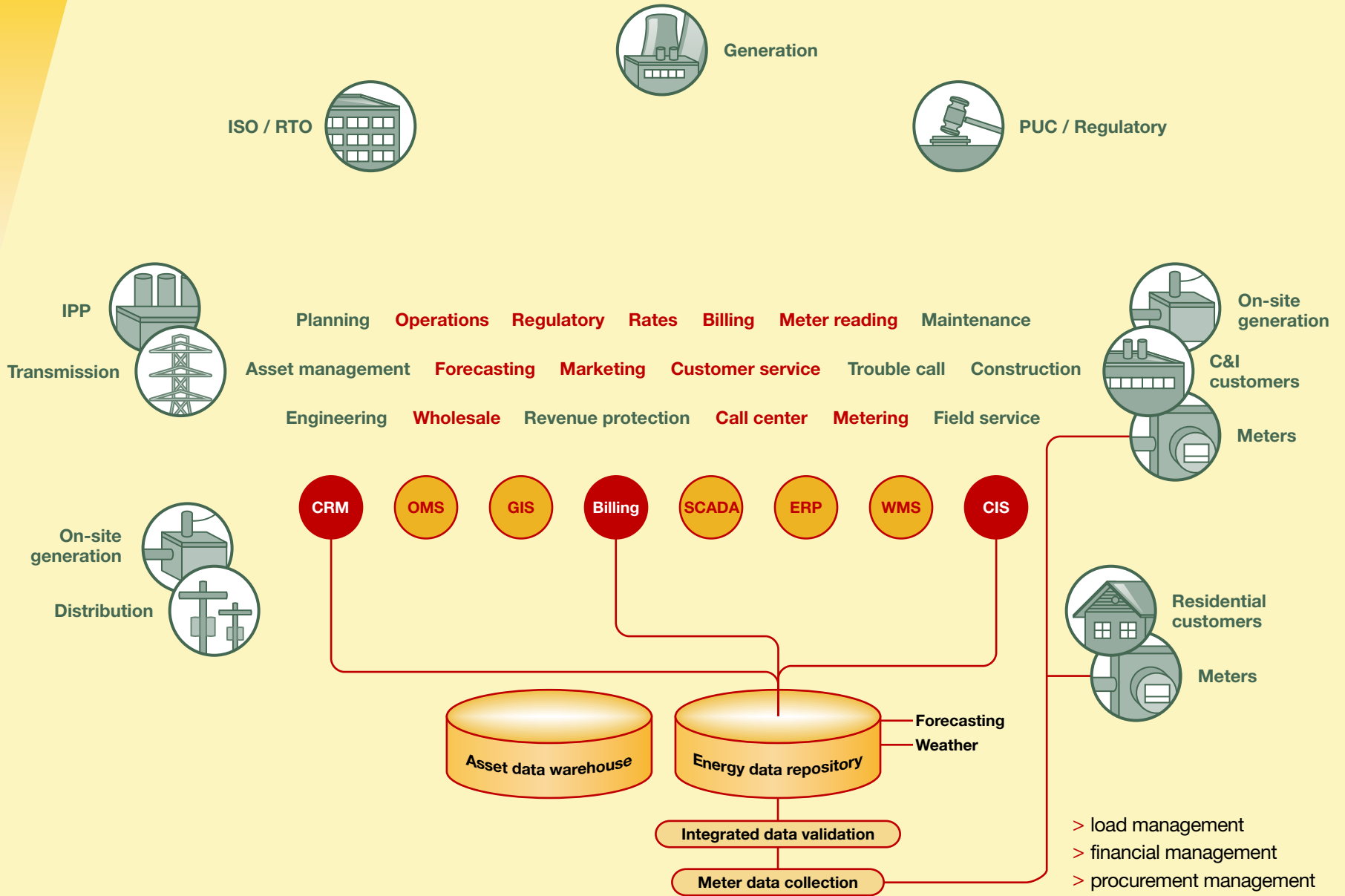


Meter data collection – paradigm shift

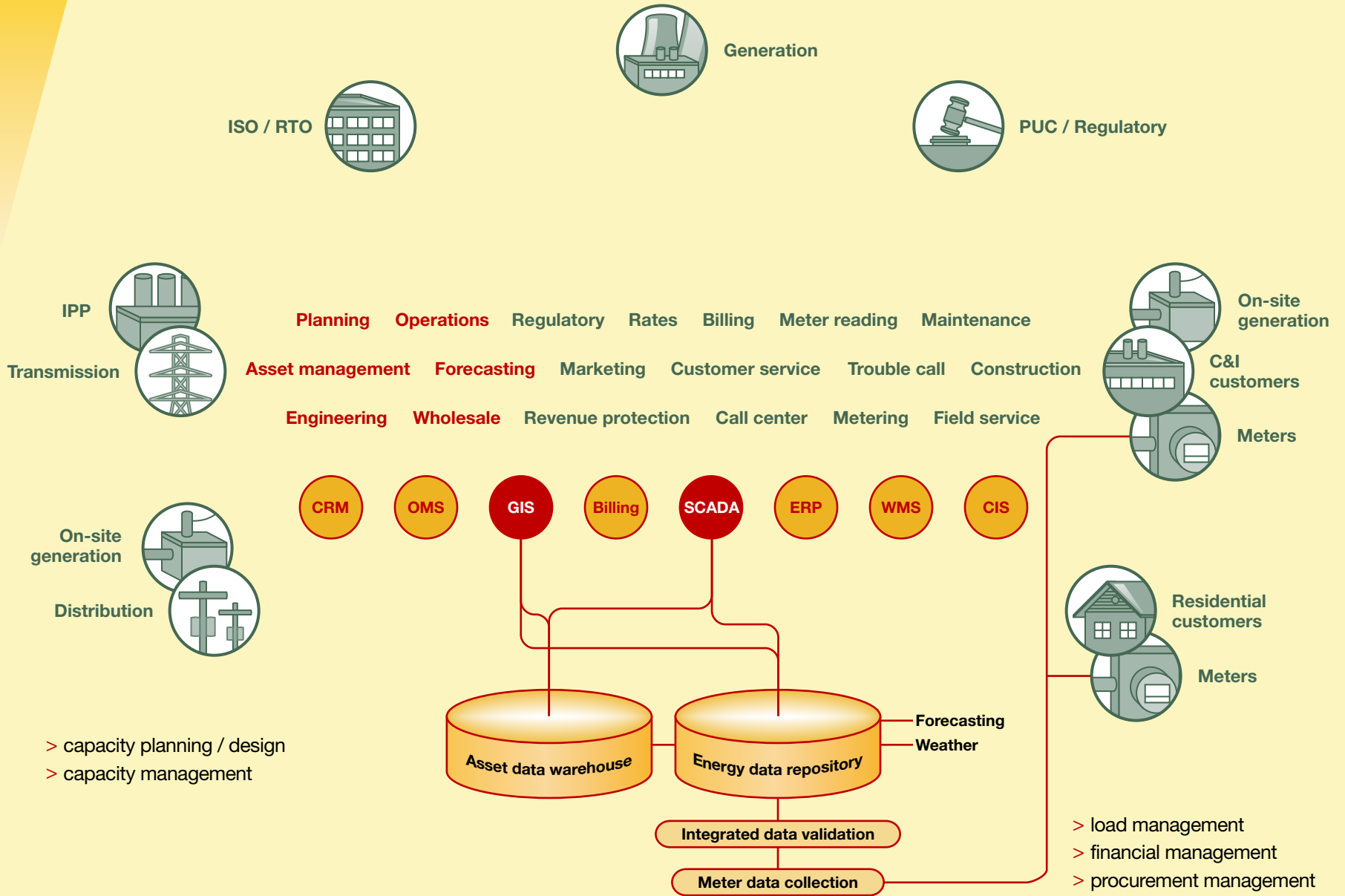




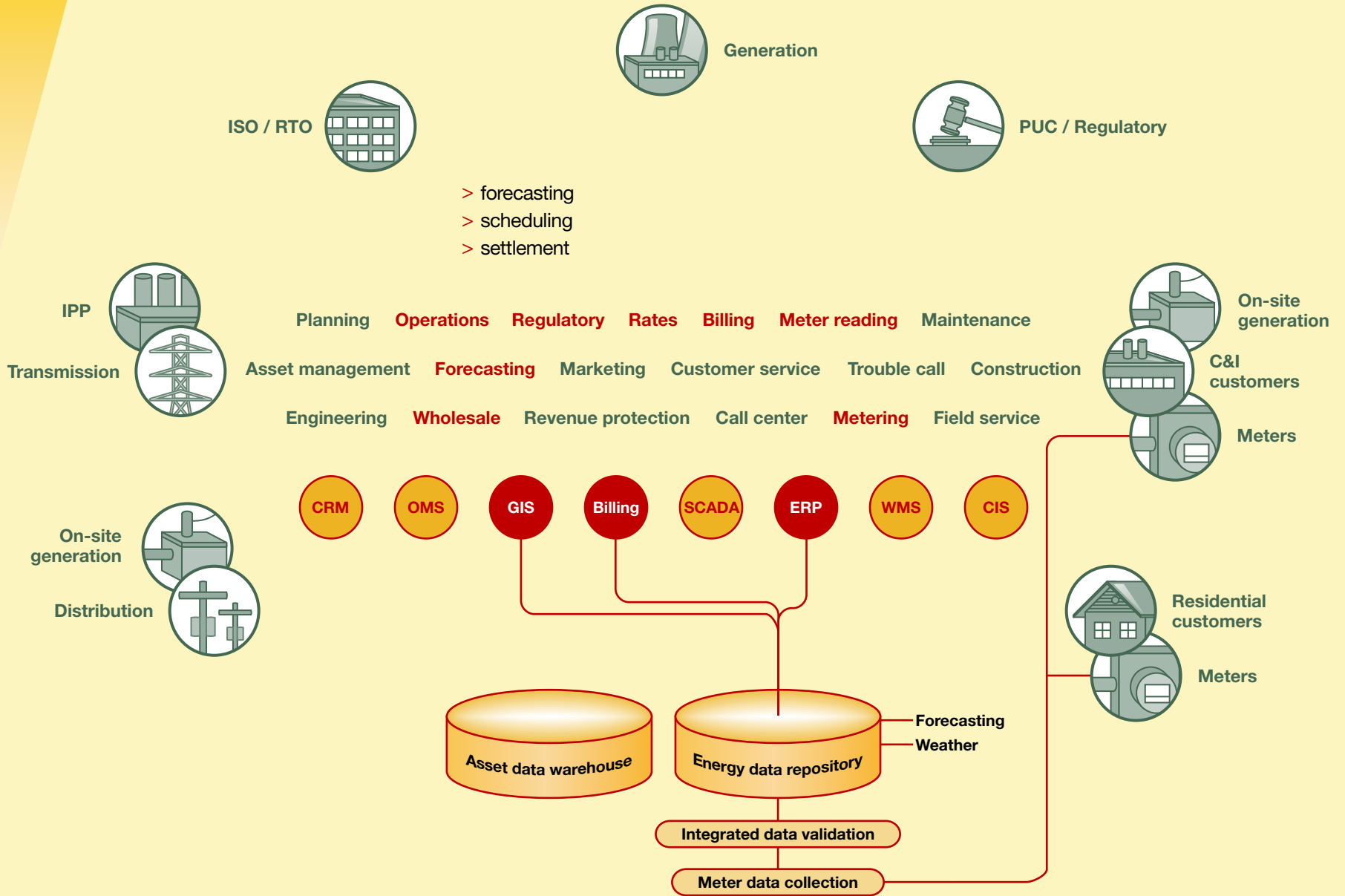
Energy management



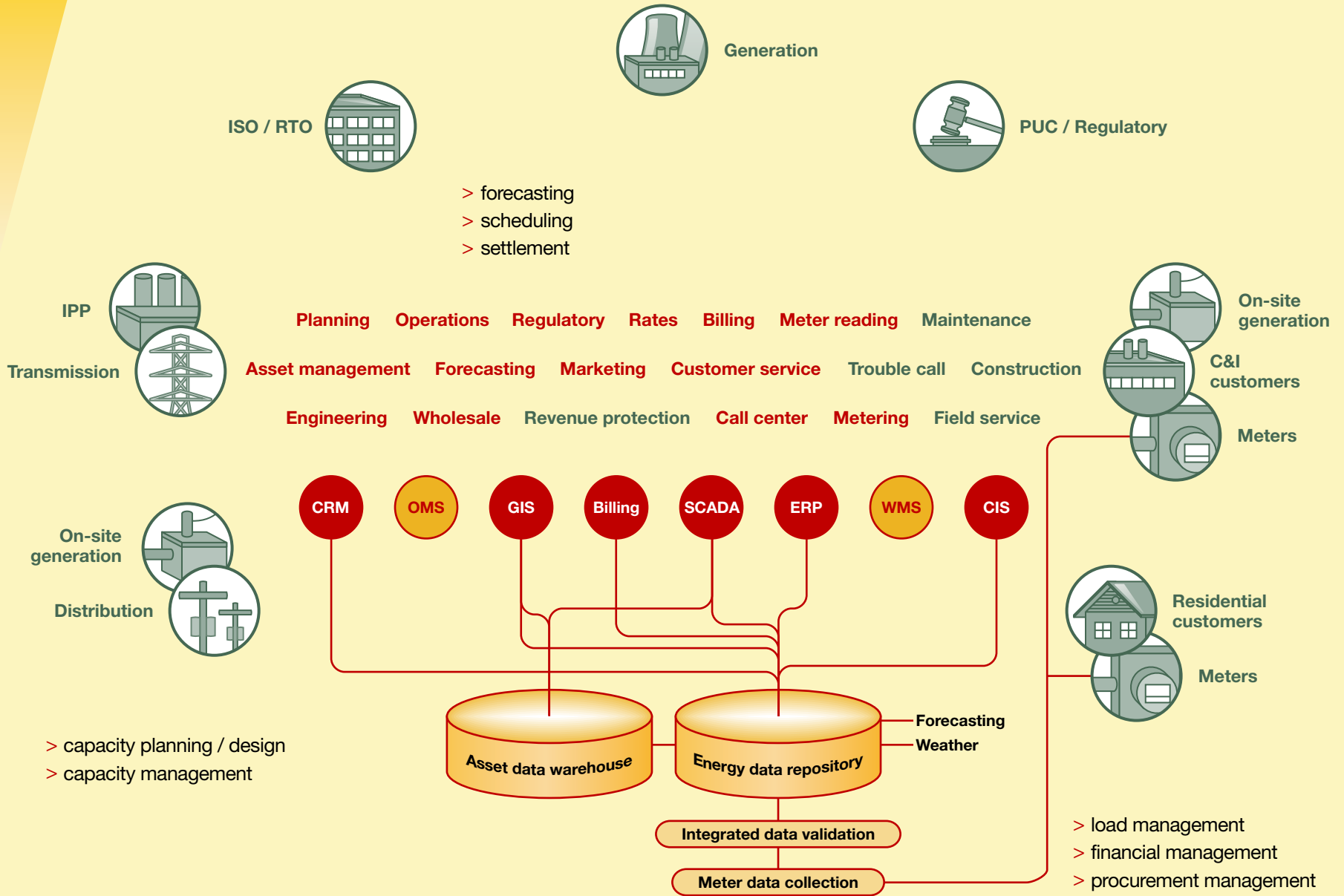
Energy management



Energy management

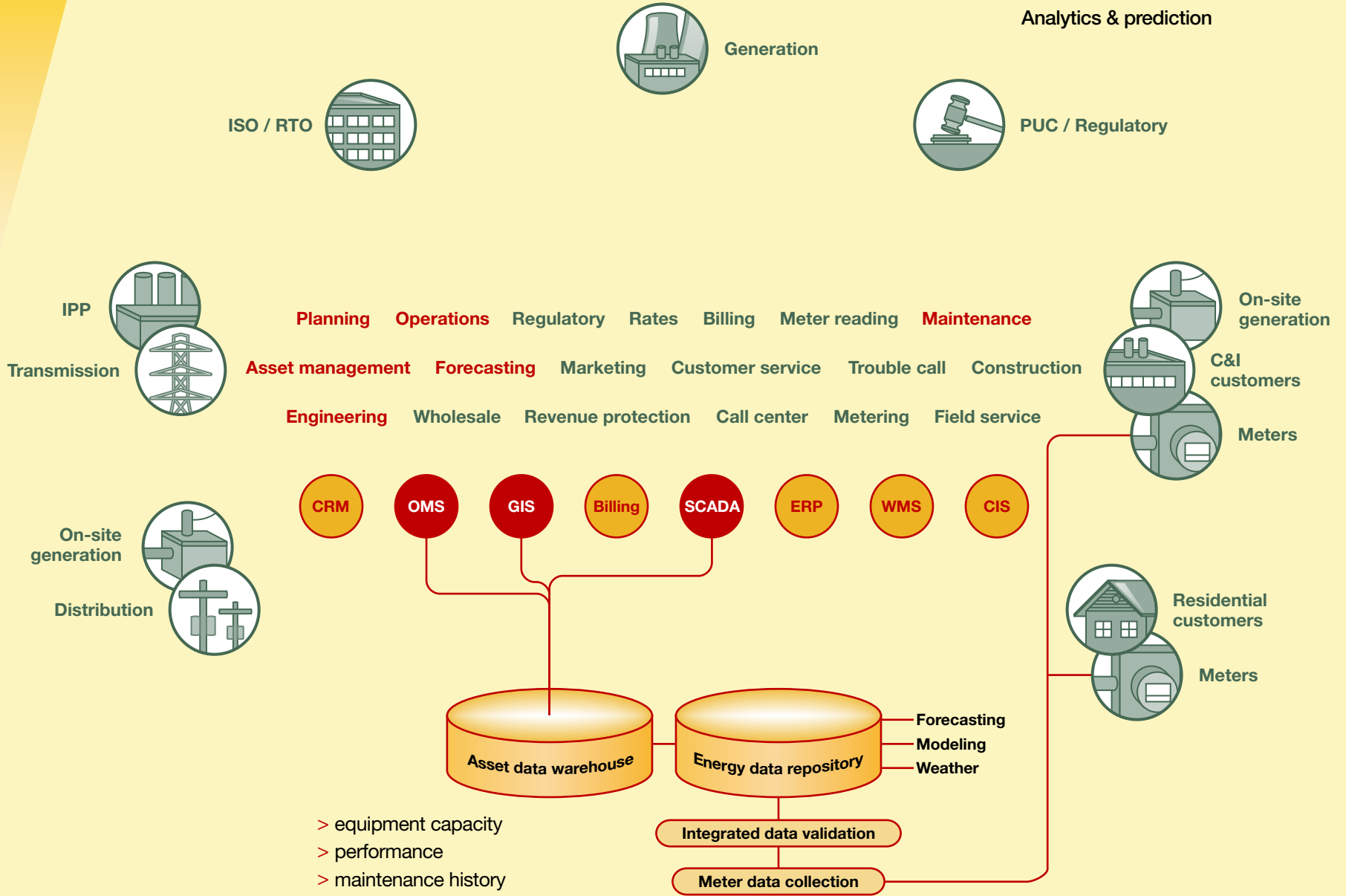


Energy management – paradigm shift

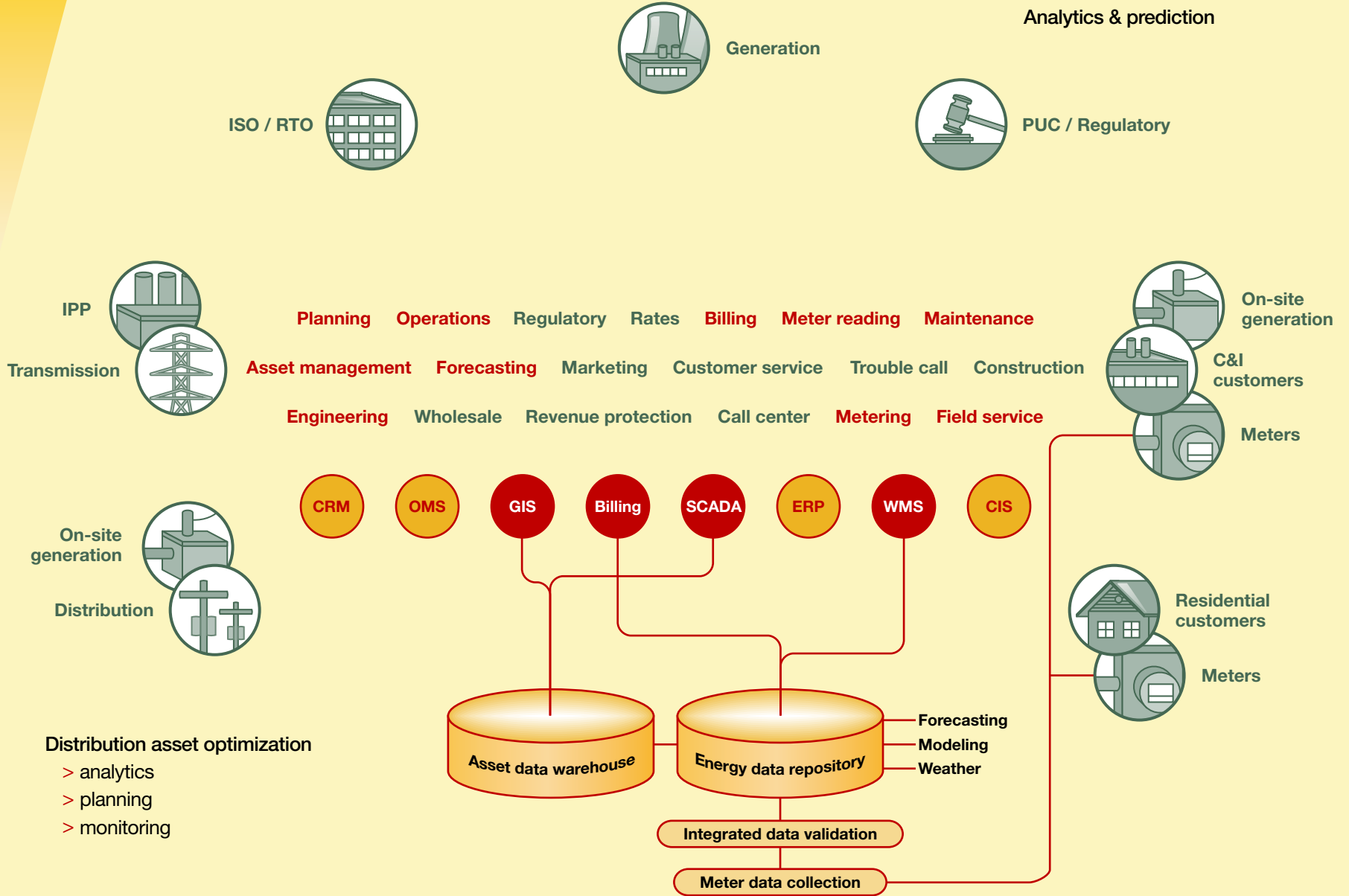




Asset optimization



Asset optimization



Distribution asset optimization

- > analytics
- > planning
- > monitoring

Asset optimization

Design Tools

- > cost
- > reliability

ISO / RTO



Generation

Analytics & prediction



PUC / Regulatory

IPP



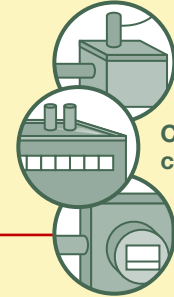
Transmission

Planning Operations Regulatory Rates Billing Meter reading Maintenance

Asset management Forecasting Marketing Customer service Trouble call Construction

Engineering Wholesale Revenue protection Call center Metering Field service

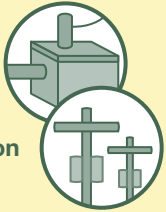
On-site generation



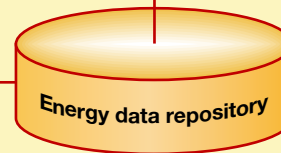
C&I customers

Meters

On-site generation



Distribution



Forecasting
Modeling
Weather

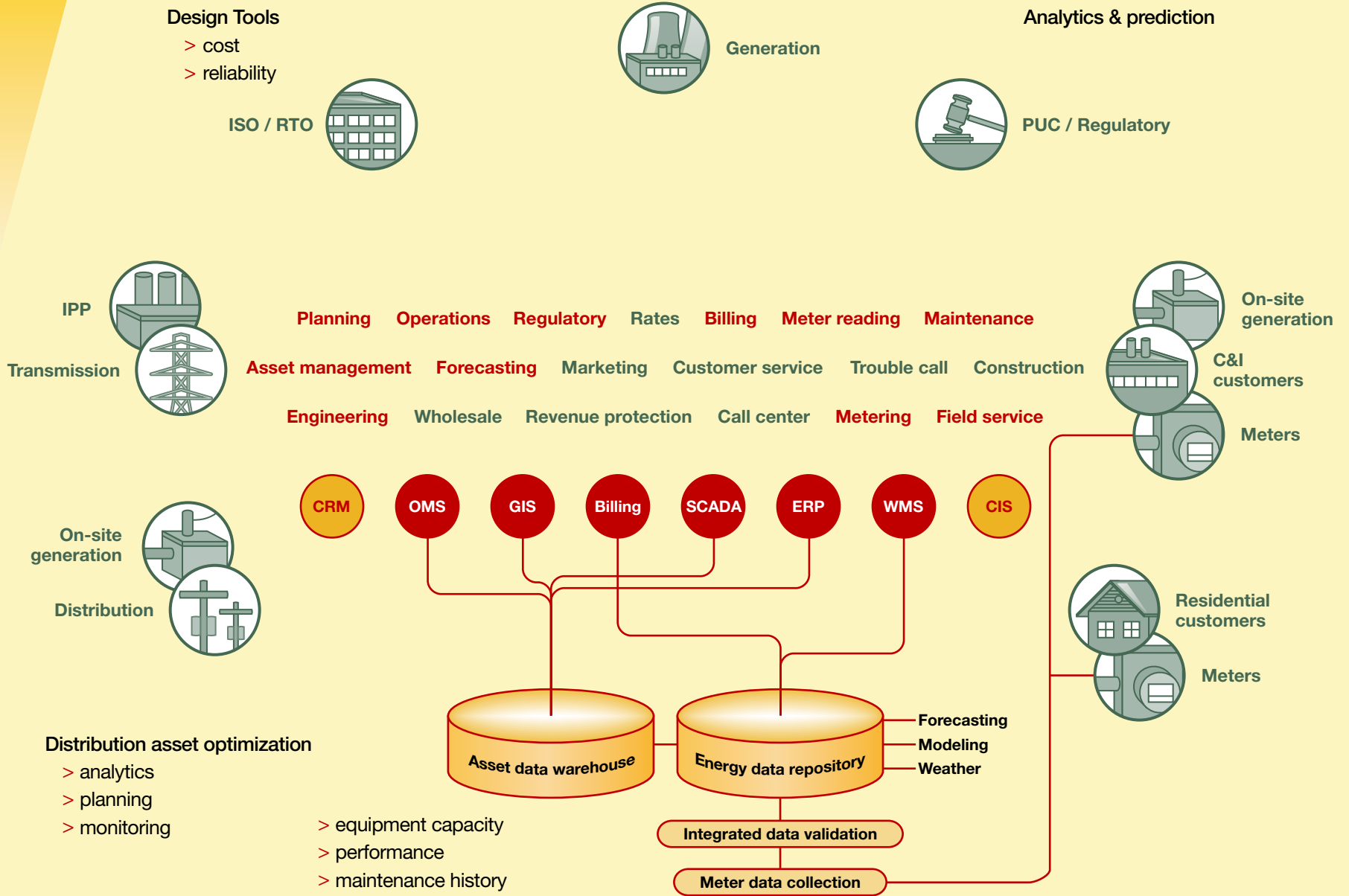


Residential customers



Meters

Asset optimization – paradigm shift





Delivery system design

Design Tools

- > design
- > optimize

ISO / RTO



Generation

Analytics & prediction



PUC / Regulatory

IPP



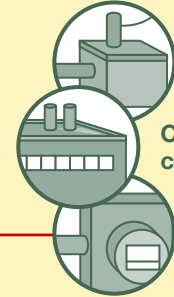
Transmission

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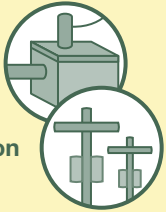
On-site generation



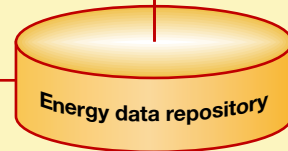
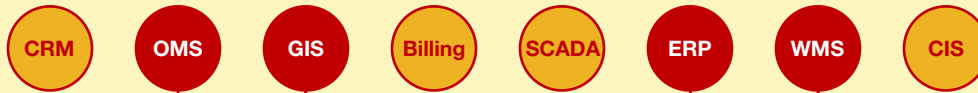
C&I customers

Meters

On-site generation



Distribution



Forecasting
Weather

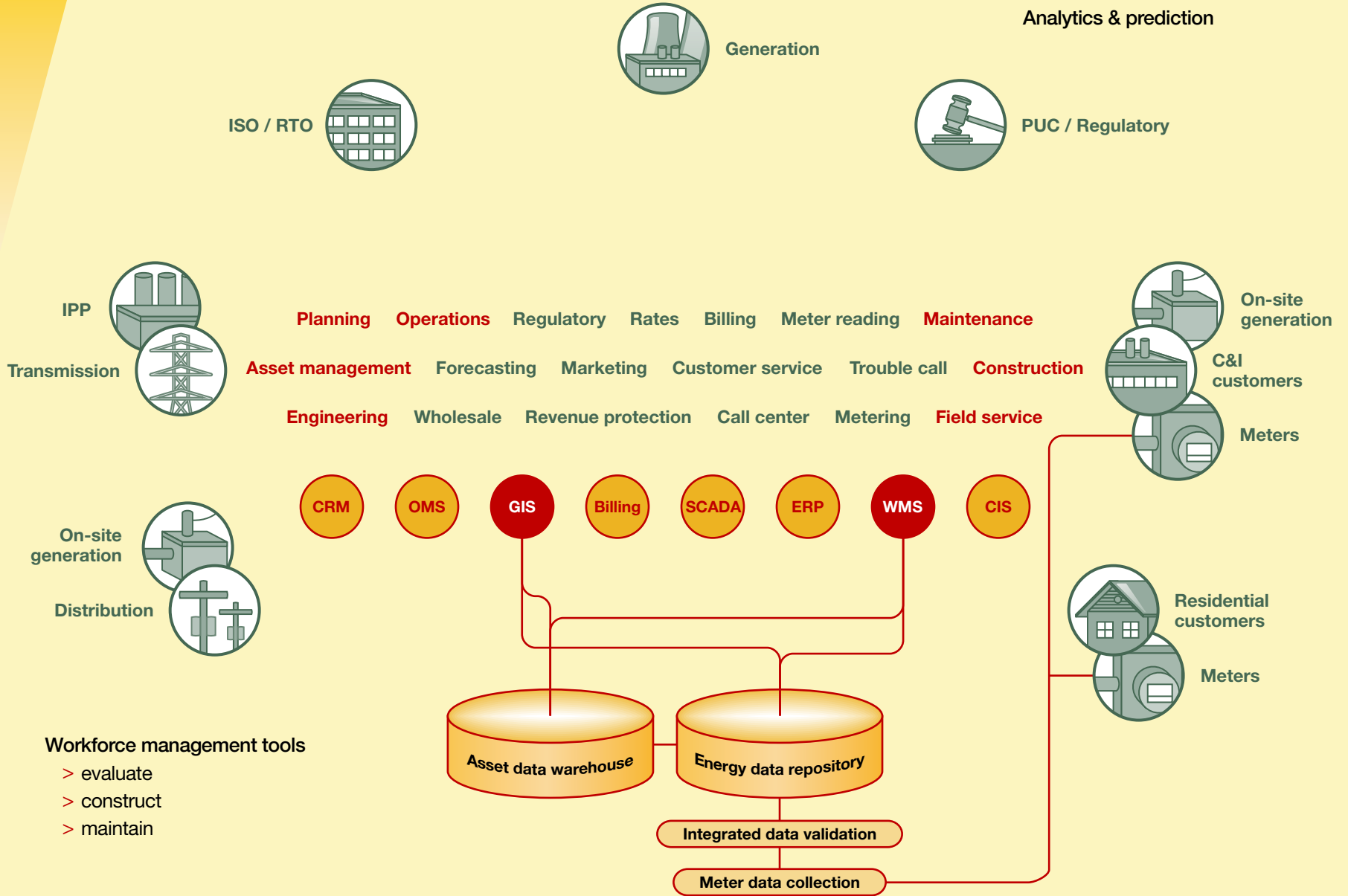


Residential customers



Meters

Delivery system design



Delivery system design – paradigm shift

Design Tools

- > design
- > optimize

ISO / RTO

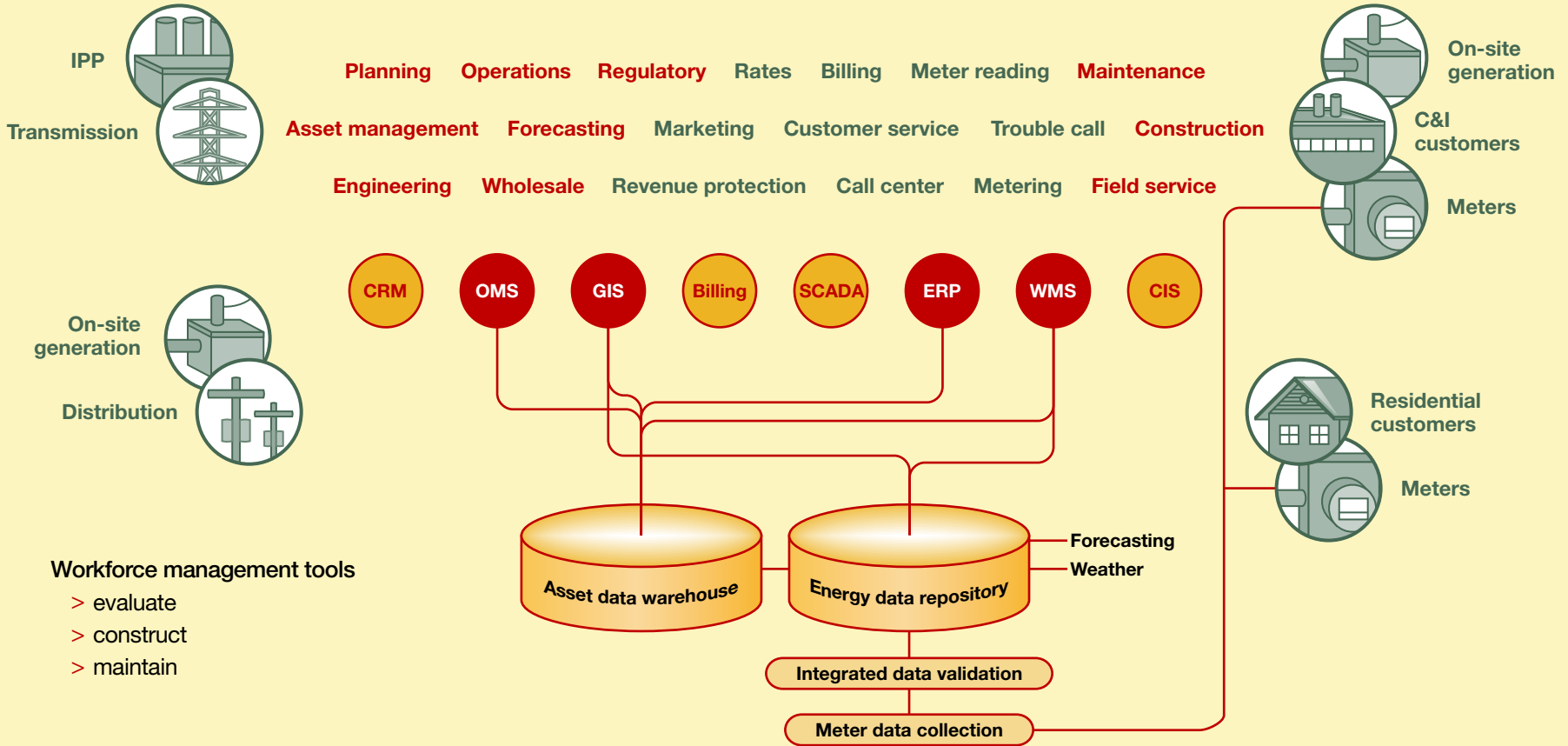


Generation

Analytics & prediction



PUC / Regulatory

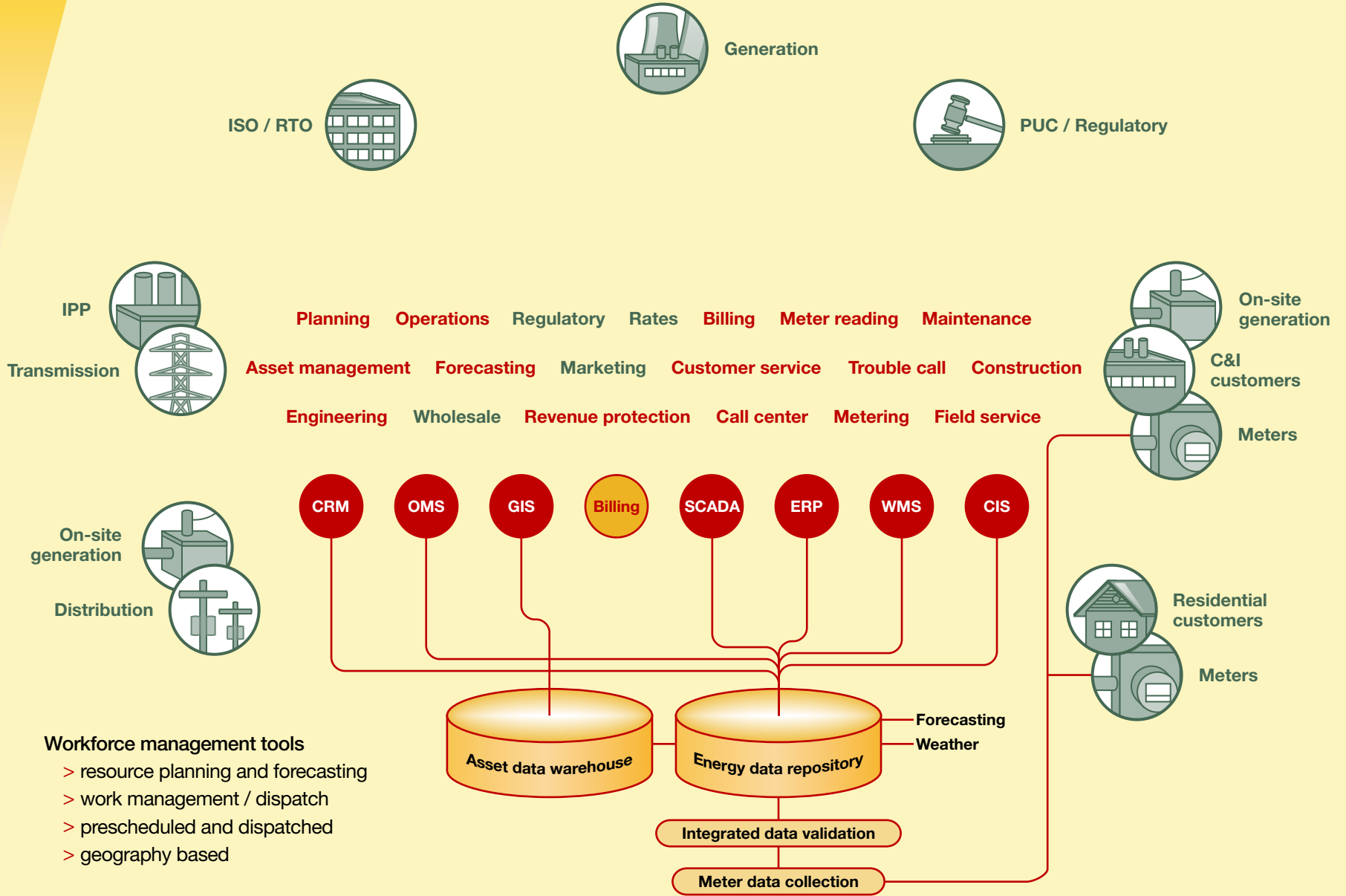


Workforce management tools

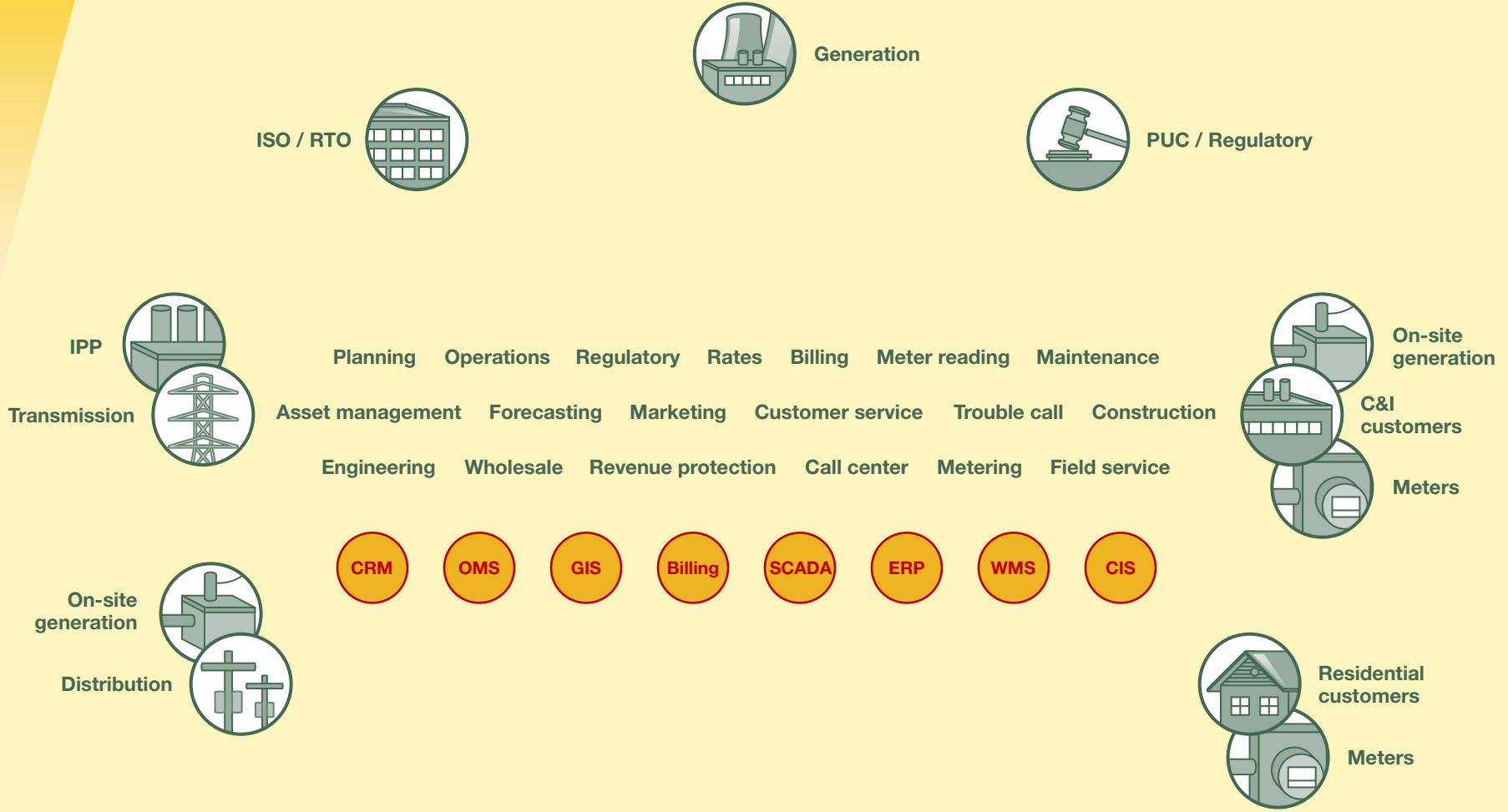
- > evaluate
- > construct
- > maintain



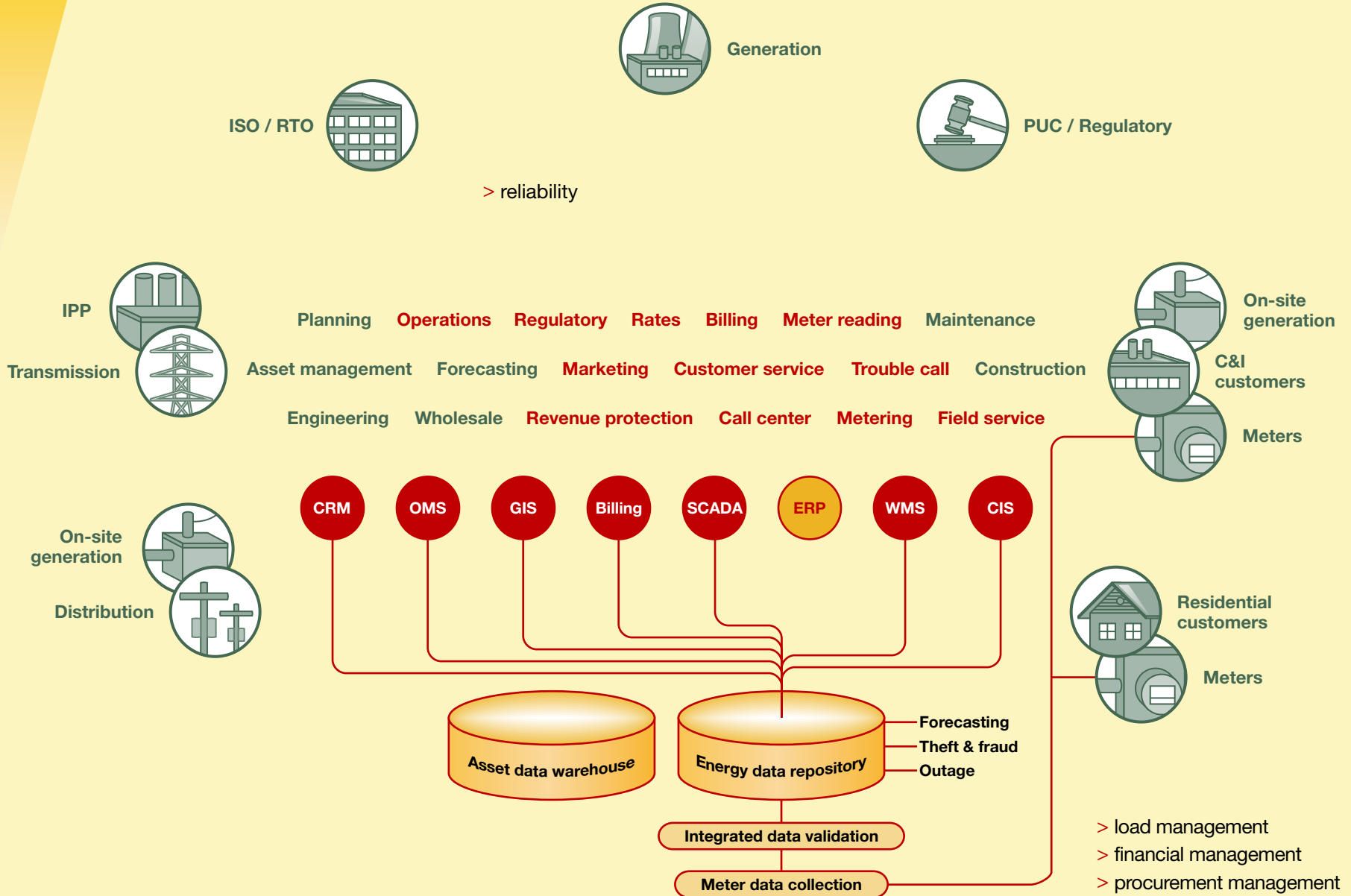
Workforce management



- Workforce management tools**
- > resource planning and forecasting
 - > work management / dispatch
 - > prescheduled and dispatched
 - > geography based



Customer care



Itron

Knowledge to Shape Your Future



Now you know