Project Nexus

Development of Smart Metering Settlement Requirements – Meeting 2

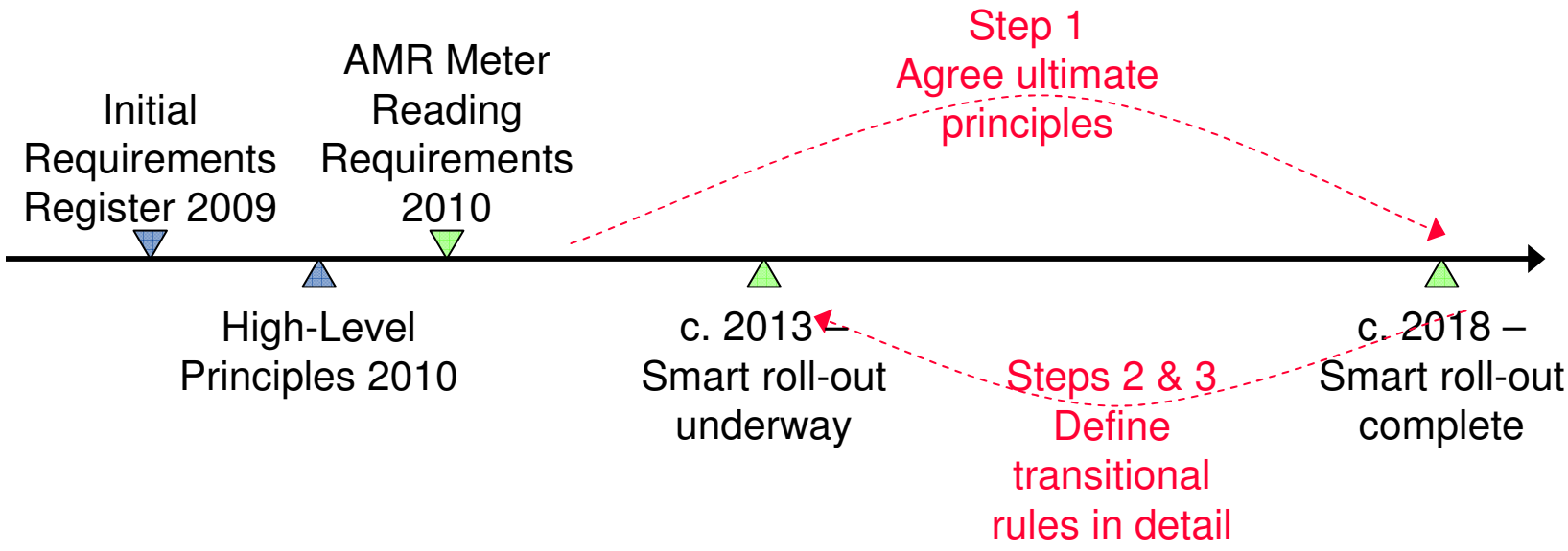
2nd March 2011

Contents

- Recap on process for development of requirements
- Summary of Settlement 1 discussions
- Issues with proposed approach
- Alternative approaches
- Role of the AUGE
- Areas for further discussion

Development of Requirements - Recap

- 3 step process to arrive at Requirements
  1. Agree ultimate principles for settlement
  2. Agree transitional principles for settlement
  3. Define transitional processes and rules in detail



Summary of Discussions at Settlement 1

- "Settlement" = determination of daily gas offtaken = "Allocation" = AMR Meter Reading Topic

- Meeting 1 reviewed High Level Principles for Allocation
- Compared principles to processes being developed in AMR Meter Reading Workgroup

- Those Shippers present expressed a preference for a daily balanced regime where all meter points would be allocated gas based on actual meter reads each day
  - A daily smear would be required to account for unidentified gas

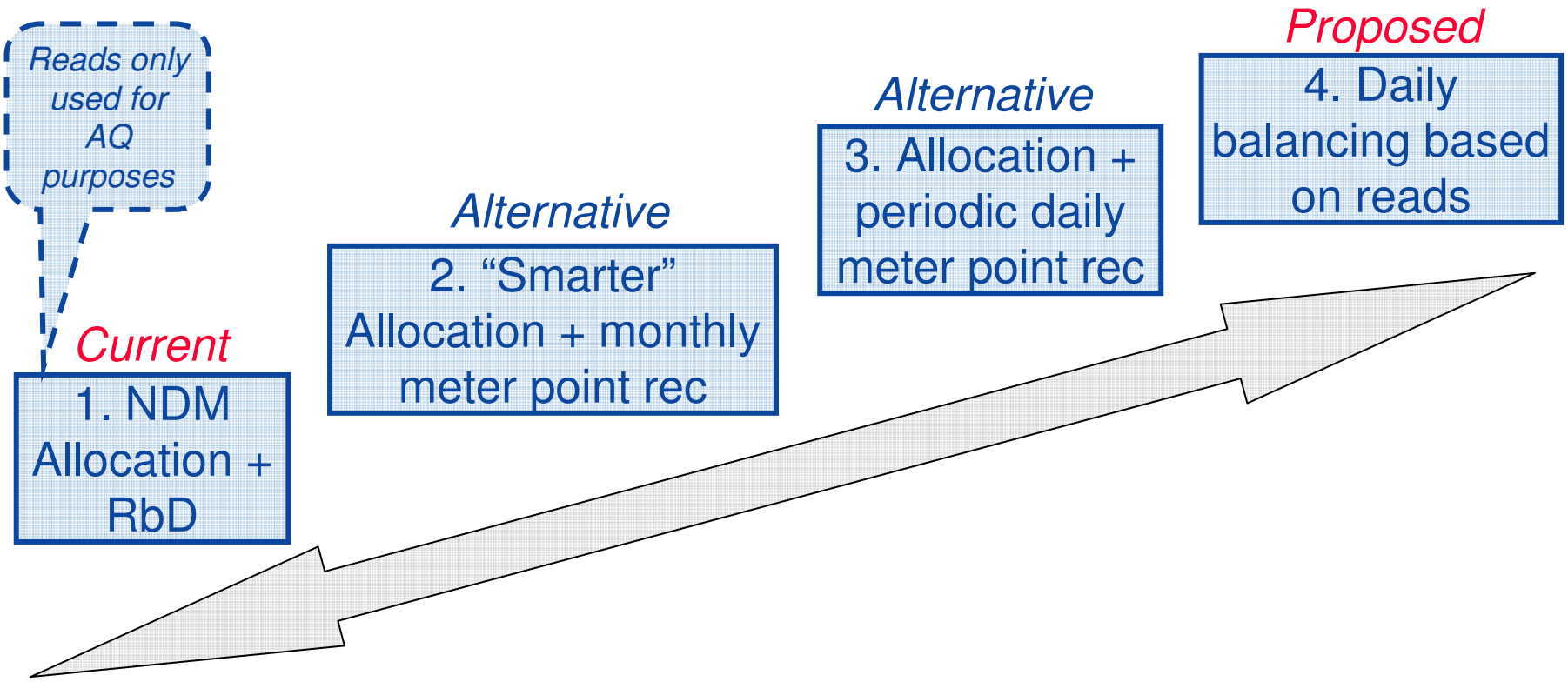
Potential Issues with this Principle

- Cost of 30 meter readings per month v 1 per month – DCC will probably charge per read – and won't submit direct to Xoserve
- Reduced battery life due to increase in transactions
- Vastly increased read volumes for DCC, Shippers/Suppliers and Xoserve – 660m per month, 8bn per year
- Potential for large number of rejections back to Shippers – 3% error rate would be 0.6m/day, 240m/year
- Consumers will probably be billed monthly – does consumer benefit from greater settlement frequencies?
- Ability of smaller Shippers/Suppliers to meet daily read requirements – possible 2-tier society?

What Risks does the proposed Approach address?

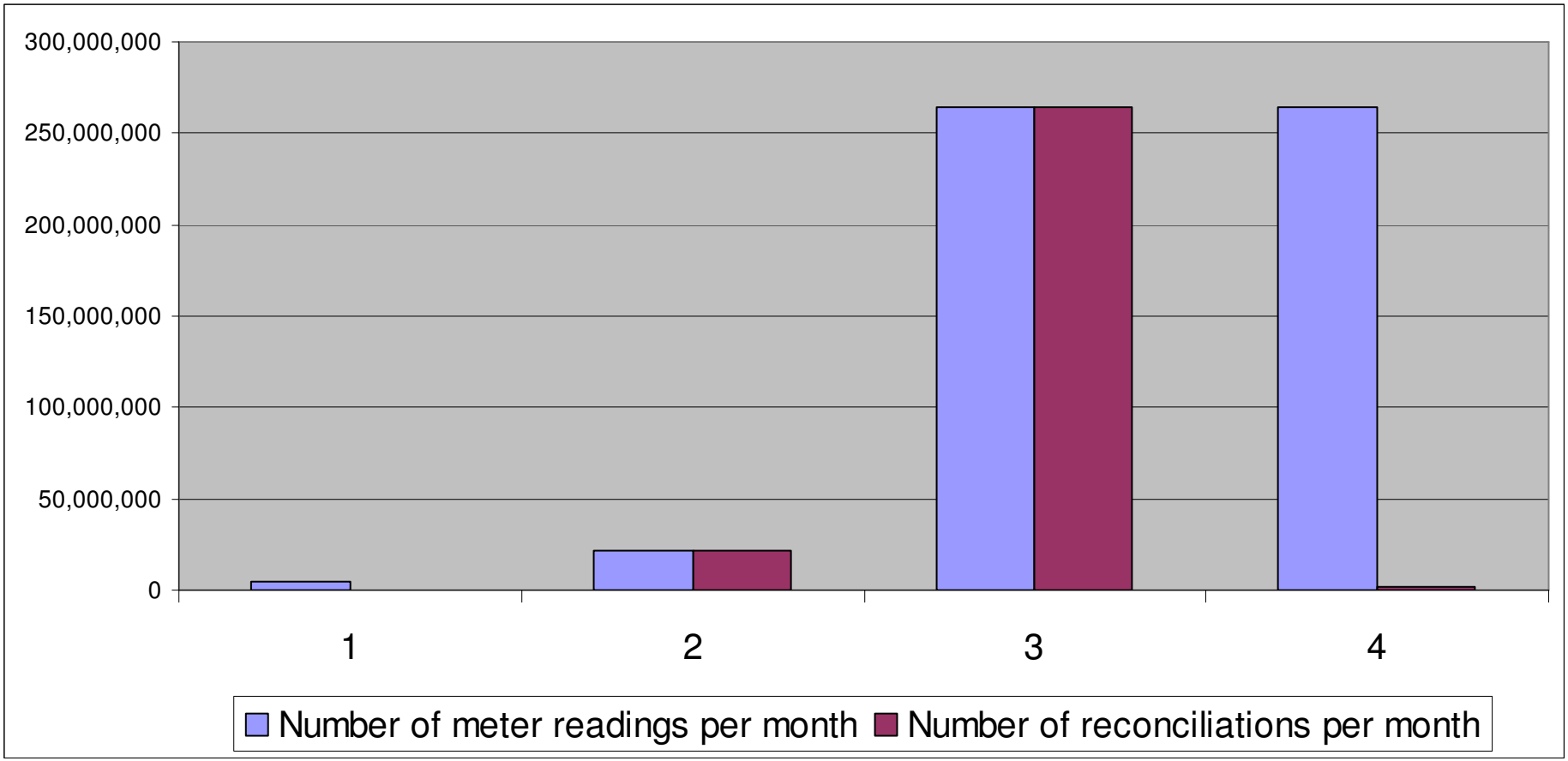
- Risk
  - RbD puts all unidentified energy into SSP sector
  - Inaccuracy in current NDM profiles
- Alternative Approaches
  - Estimation plus Meter Point Reconciliation
  - Use/amend AUGE approach
  - Develop new profiles based on Smart meter data
  - Use real-time Smart sample data in daily estimation

Current and Alternative Approaches



Current and Alternative Approaches - Volumes

1. NDM Allocation + RbD	2. "Smarter" Allocation + monthly meter point rec	3. Allocation + periodic daily meter point rec	4. Daily balancing based on reads



Alternative Approaches to Address Risks

- Approach 2 – “Smarter Allocation” + Meter Point Reconciliation
  - Use sample data from Smart Meters to develop better estimation algorithms
  - Or use real-time data from a sample of similar sites to determine how much gas all sites in a group have used
  - Reconcile to actual meter readings each [month] – total gas usage is correct
  - If RbD is removed a new reconciliation smear will be required
- Approach 3 - Allocation + periodic daily meter point rec
  - Use sample or real-time data as above
  - Reconcile to batch of daily actual meter readings each [month]
  - If RbD is removed a new reconciliation smear will be required
  - *Reduces daily read volumes but not overall transaction volumes*

Role of AUGE

- Modification 0229 introduces Allocation of Unidentified Gas Expert (AUGE)
- AUGE defines an annual Unidentified Gas Methodology to apply from April each year – after consultation
- Methodology will determine amount of energy (kWh) to move between Smaller and Larger Supply Point sectors
- Amount is fixed for 12 months and is transferred between SSP and LSP in 12 equal instalments – energy only
- Charges calculated and issued on Xoserve invoices on behalf of GT – could be positive or negative
- Adjusts RbD and moves a share of known issues to the LSP sector – could be amended by future Mods

Questions for Discussion Today

- What is the future high level principle for Allocation in a fully Smart world?
  - Is that efficient, practical and consistent with AMR requirements?
- What is the high level principle for Allocation in the transitional world
  - Is that efficient, practical and consistent with AMR requirements?
- What are the advantages/disadvantages of each approach?
  - Initial view of benefits to support the business requirements