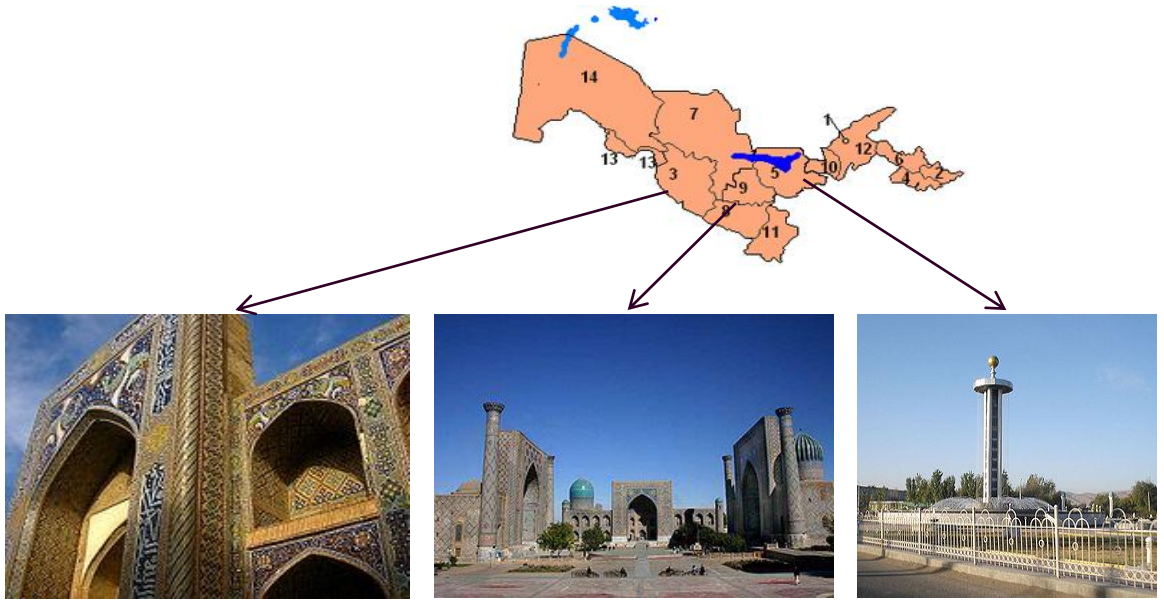
UZB Advanced Electricity Metering Project



3. Bukhara

9. Samarkand

5. Jizzakh

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ADB

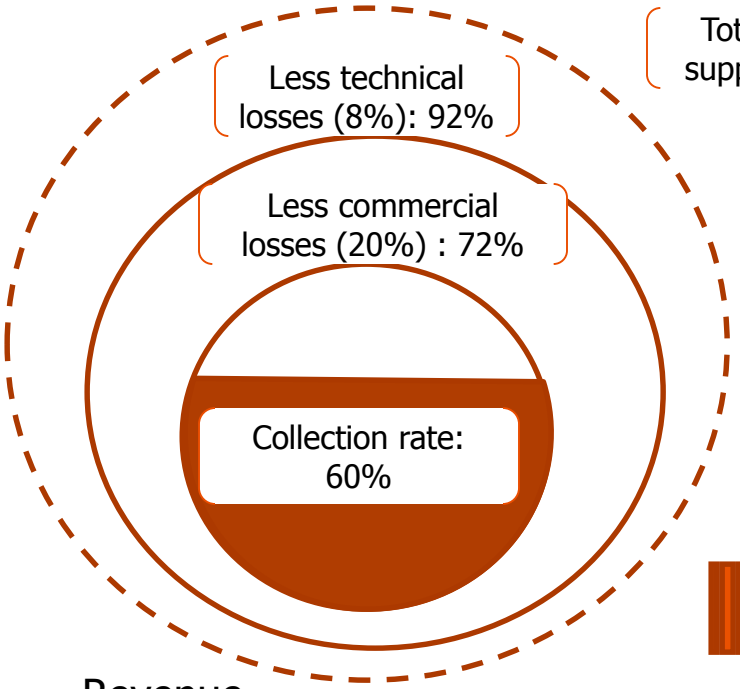
Uzbekistan AEM nationwide role out

IFIs	Number of Customers	Name of Regions	Status
ADB (Phase 1)	**1 million**	**Bukhara, Jizzakh, Samarkand regions**	**Contract Signed**
WB	1.3 million	Tashkent City, Tashkent region, Syrdarya region	PQ/Bidding stage
IsDB	0.9 million	Karakalpakstan, Khorezm, Navoi regions	Consultant selection
ADB (Phase 2)	**3.1 million**	**Andijan, Ferghana, Kashkadarya, Namangan, and Surkhandarya regions**	**Consultant selection**
Total	6.3 million	(14 regions)	

ADB = Asian Development Bank, IFIs = international financing institutions, IsDB = Islamic Development Bank, PQ = prequalification, WB = World Bank
Source: Uzbekenergo.

Reducing aggregate technical, commercial and collection losses (ATC&C)

Before project

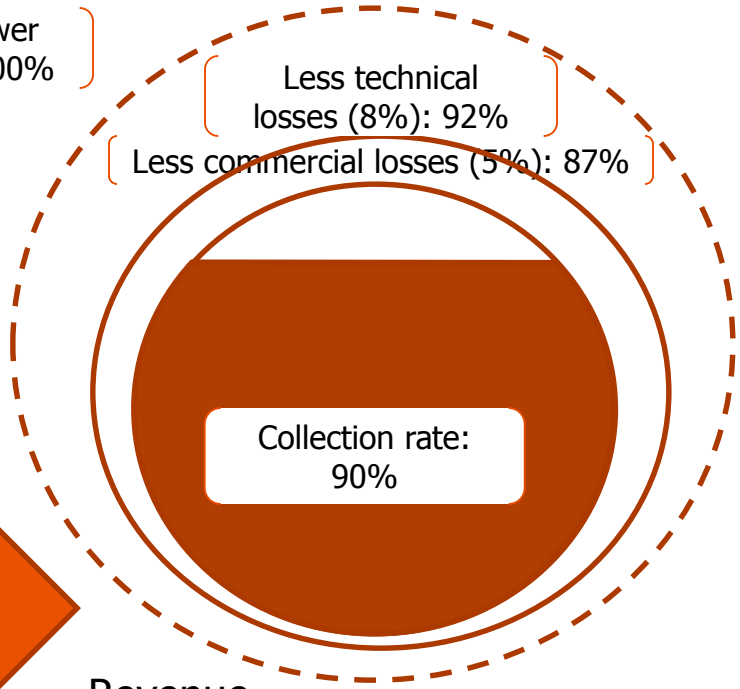


- Revenue

(1-28%) x (1-40%)=43% (incl. tech losses)

(1-20%) x (1-40%)=**48%** (excl. tech losses)

After project



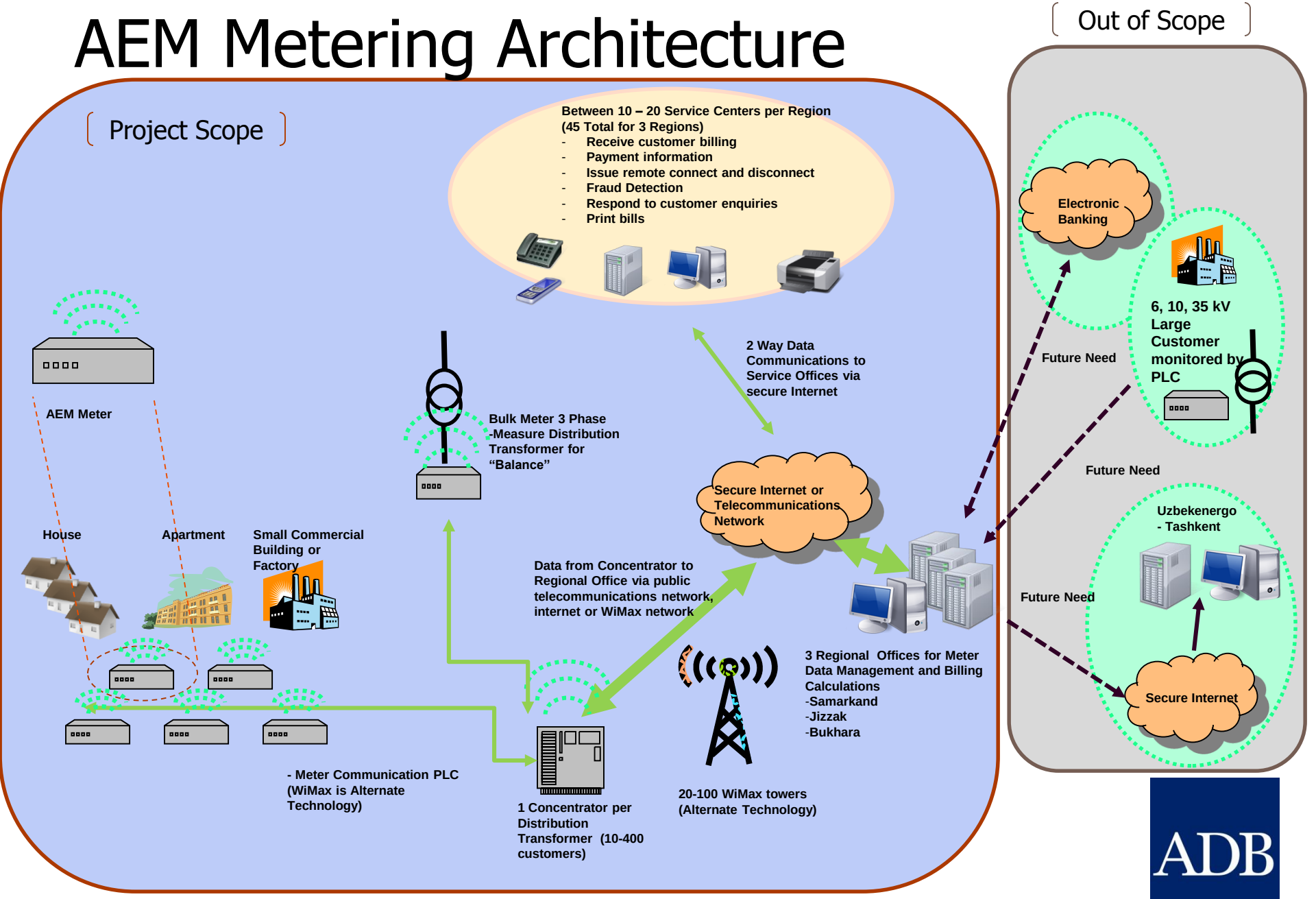
- Revenue

(1-13%) x (1-10%)=78% (incl. tech losses)

(1-5%) x (1-10%)=**86%** (excl. tech losses)

Revenue increase(%) = (86%/48%) – 1 = **79%**

AEM Metering Architecture



For AEMP1, Updated 20 May 2011

Issues in project design & implementation

- **Selection of communication technologies**: meters to concentrators, and concentrators to MDM.
- **Functions and "future proofing"**: remote disconnect/reconnect, tamper-proof, DSM functions, M-bus for gas/water metering, preparation for smart grid.
- **Procurement packages**: Meters and MDM system – turnkey or separate procurement?
- **Unit cost and return on investment**: market price, financial impact, benefit counting