On-Line Schedule Adjustment for Three-Phase Energy Storage in Low-Voltage Distribution Networks

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It is not a dream. It is a simple feat of scientific electrical engineering. Electric power can drive the world's machinery without the need of coal, oil or gas. Although perhaps humanity is not yet sufficiently advanced to be willingly lead by the inventors keen searching sense. Perhaps it is better in this present world of ours where a revolutionary idea may be hampered in its adolescence. All this that was great in the past was ridiculed, condemned, combatted, suppressed only to emerge all the more triumphantly from the struggle. [...] Our duty is to lay the foundation for those who are to come and to point the way. Yes humanity will advance with giant strides. We are whirling through endless space with an inconceivable speed. All around everything is spinning, everything is moving, everywhere there is energy.

— Nocola Tesla

Abstract

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Nomenclature

BESS	Battery Energy Storage Solution
ESMU	Energy Storage Management Unit
EV	Electric Vehicle
LCT	Low Carbon Technology
PV	Photo Voltaic

Chapter 1

Introduction

Electric energy has become a vital commodity for the uninterrupted functioning of today's society. In the UK, demand for this commodity has experienced a particularly steep increase due to the electrification of e.g. railroads and household appliances, incentives to support LCTs, e.g. PVs, EVs and energy storage, and socio-political ambitions to reduce CO_2 emissions to counter climate change.

Bibliography